3D Machine Vision

From simple height profile measurements to precise dimensional checks of surface elevations with micrometer accuracy.

**PERFECT 3D MEASUREMENT GUARANTEED**
Thanks to various robust methods such as laser triangulation, stereo vision and interferometry.

**FASTEST PROCESSING TIMES**
3D standard solutions with in-line machine vision systems used on production lines.

**FREEDOM / FLEXIBILITY GUARANTEED**
Multiple camera solutions, robust 3D measurement from a combination of different procedures, use of various 3D manufacturer libraries.
Measuring objects in 3D has many advantages in many applications. Additional depth information can be important for product identification, quality assurance or robot control. They are practically indispensable when measuring volumes.

In practice, it is important to achieve robust results with different ambient conditions, surface qualities and colors of the products. Various methods help to achieve robust results. Compar offers feasibility studies and has a suitable standard solution for many 3D requirement applications.

### Criteria / 3D Machine Vision

<table>
<thead>
<tr>
<th></th>
<th>Stereovision</th>
<th>Triangulation</th>
<th>Interferometry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part size</td>
<td>from 10mm up to 1500mm</td>
<td>from 1um up to 400mm</td>
<td>from 100nm up to 6mm</td>
</tr>
<tr>
<td>Reference resolution (2)</td>
<td>from 1mm</td>
<td>from 0.1um</td>
<td>from 10nm</td>
</tr>
<tr>
<td>Performance (1)</td>
<td>from 0.2 sec / part</td>
<td>from 1 sec / part</td>
<td>from 1 sec / part</td>
</tr>
<tr>
<td>Vision system</td>
<td>vision® expert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine vision highlights</td>
<td>Teach-in mode for new products, integrated product management, production statistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspection tasks</td>
<td>Product identification, volume measurement and profile control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3D measurement system Price from (including basic engineering)</td>
<td>from EUR 35K</td>
<td>from EUR 50K</td>
<td>from EUR 75K</td>
</tr>
</tbody>
</table>

### Option

- Multi camera system
- Combined inspection of multiple features
- Special designs are also possible (on request)

(1) cycle time strongly dependent on geometry, surface texture image size as well as handling speed.

### REALIZED APPLICATIONS / EXAMPLES / MARKETS

- watch making
- packaging
- medtech
- automotive
- food
- non industrial