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| * **At a Glance** * Reliable part recognition in 3-D * Position detection of containers * Component specification by setup wizard or CAD * Non-collision part removal through gripper "suitability" * Dual gripper strategies enable optimum availability |

**Bin Picking with VMT PickFinder**

**The reliable, turnkey VMT PickFinder industrial vision solution detects objects in containers, calculates the optimum path and gripping coordinates for handling machines or robots, and ensures precise, collision-free bin picking processes.**

**Intelligent algorithms for multi-point path guidance calculate position- and cycle-optimized robot paths for the entry and exit of the gripper tool into the container. Dual gripper strategies avoid empty runs and downtimes in individual components that are difficult to pick.**

**Simultaneous Image Capturing for the Ongoing Process**

The gripping process in the container begins with 3-D image capturing by the sensor of the VMT PickFinder. During this capturing, the robot can process or deposit a previously gripped part simultaneously which ensures the best possible utilization of the robot. The captured images are supplied to the software as raw data, preprocessed, filtered, and compressed. An intelligent search algorithm compares the optimized actual data of the components with stored nominal data which has been learned using a setup wizard or saved on the basis of CAD data. This enables the reliable detection of parts, independently of their position or orientation in the container.

**Calculate Gripping Points and Collision-Free Movements**

The detected components are evaluated according to their gripping suitability and sorted in descending order. A check is then made to ensure that the components are accessible and the robot path does not involve any collisions. The robot grips the component, which is most reliable and simple to remove. Should this be critical, the dual gripper strategy directs the robot to the next part on the ranking list. VMT PickFinder also supplies exact position data for the parts and container. With the aid of the multi-point path planning, the robot is guided through the container with no collisions, while the correct picking of the component is always checked to optimize the process.

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| **Caption** | VMT PickFinder ensures precise, collision-free bin-picking processes |
| **Download URL** | |

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