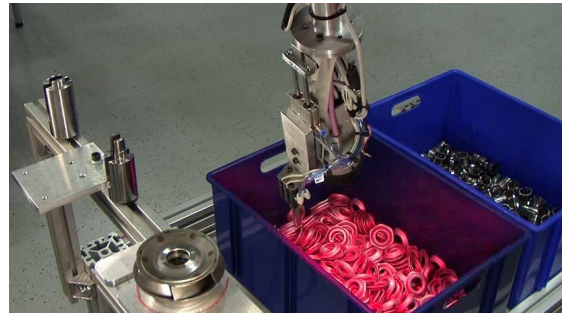


Industrial Demands

Scape Technologies A/S felt the need for a compact and flexible bin-picking solution, where cycle time is not very critical. The following are the demands from the industry for such an application

1. Simple workcell construction / less hardware.
2. Bin-picking from more than one pallet (bin).
3. Different robot brands.
4. Standardized tool-unit with grippers.
5. Orientation control of parts at place position.
6. 3D recognition of parts in an unstructured and random orientation.
7. Dynamic robot control.
8. Multiple gripping possibilities.
9. Optimal workcell layout.
10. Quick and easy calibration procedures.
11. Quick re-configuration of the cell.
12. Fast and reliable communication.



SCAPE Bin-Picker (Flexible) Features

Scape Technologies successfully developed the SCAPE Bin-Picker flexible solution that meets the given industrial demands. The following are the salient features of the solution:

1. SCAPE Bin-Picker (flexible) uses only **one tool mounted camera** for taking images of the pallet box. The stationary camera and lighting tower is not needed.
2. The system can pick parts in an unstructured and random configuration from **more than one bin**.
3. Independent of **robot brand** as communication with robot handled by the SCAPE Communication Server.
4. **SCAPE Standard Tool-Unit** developed to give flexibility in selecting grippers, faster system integration and quick after sales support.
5. Accurate **part orientation** at place position.
6. **Fastest 3D recognition** of parts in an unstructured and random orientation.
7. Robot motion controlled during bin-picking for **collision safe** operations.
8. **Multiple grippers** on tool unit gives many gripping possibilities thus ensuring bin-picking even in the corners.
9. **Flexible cell configuration** gives optimal workcell layout and saves space at the production facility.
10. Workcell and vision components **calibration** is performed with quick and easy calibration procedures.
11. **Re-configuration** of robot cell for bin-picking other parts is performed with a few mouse clicks (provided same grippers).
12. **SCAPE Communication Server** ensures reliable communication between SCAPE and the robot. Ethernet connection gives the needed speed for the communication.

