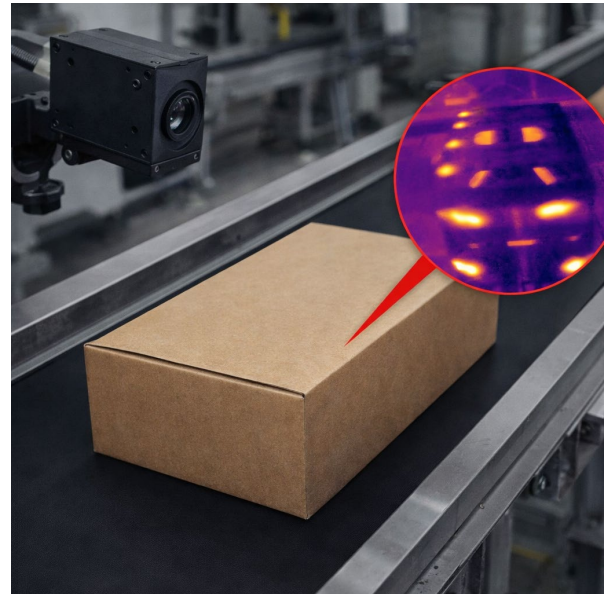


Thermographic Adhesive Joint Inspection in Packaging Process

In the packaging process of multipack products – such as cardboard carriers containing multiple beverage cans – reliable bonding is essential to ensure structural integrity, transportability, and product safety. Only when all adhesive joints are correctly applied can consumers safely remove the package from a supermarket shelf without the carton opening and the products falling out.

Our **Thermal Hot-Melt Glue Spot Inspection** solution verifies this critical production step directly within the packaging line. Using an industrial thermal imaging camera, the system checks whether the applied hot-melt adhesive is actually present. Since freshly applied adhesive has a higher temperature than the surrounding carton material, each glue spot can be detected reliably through thermal imaging, even at very high production speeds.



In a typical application, up to eight adhesive spots per package are inspected. The inline inspection operates at speeds of up to 60 packages per minute for typical carton dimensions of approximately 200 × 300 mm. Packages with missing or defective adhesive joints are automatically identified and immediately rejected from the production process. Via a TCP/IP interface, the inspection system communicates directly with the machine control system and integrates seamlessly into existing production lines.

The solution has been specifically designed to meet the demands of industrial packaging environments. It operates reliably at elevated ambient temperatures and in harsh, dusty, or contaminated production conditions while consistently delivering stable and repeatable inspection results.

With Thermal Glue Spot Inspection, packaging manufacturers benefit from an efficient, non-contact, and highly reliable quality assurance method that increases production reliability, reduces waste, and helps ensure end-customer satisfaction.

Technische Highlights & Vorteile

- **100% Inline Inspection:** Reliable verification of all adhesive spots directly within the packaging process
- **Secure Packaging:** Ensures stable packaging for safe transport and handling
- **Automatic Rejection:** Defective adhesive applications are detected early and automatically removed from the production line
- **High Process Reliability:** Accurate inspection performance even at high line speeds
- **Easy Integration:** Seamless connection to existing production systems via TCP/IP
- **Robust Technology:** Designed for demanding industrial production environments