

# AMERICAN MARKING, INC.

## Application Guide

### Kortho Hot Quick Coder

The following case histories detail successful applications for the Kortho Hot Quick Coder . These applications were selected to show the diverse range of installations in which the Kortho Coders can be used.

#### Application #1: Code Date Bottled Water



A producer of bottled water required a 6-digit expiration date code on their 0.5 liter water bottles. A small character ink jet system had been previously used for this application but the customer was looking for a more cost effective solution. The Kortho Hot Quick Coder provides excellent performance at a savings of over \$10,000.00 on the coding system investment. The customer also anticipates at least a \$2,000.00 per year additional savings on the consumable items and maintenance expenses.

**Line Speed:** 60 Feet Per Minute

**Marking Cycle Rate:** Ranges between 60 - 240 Cycles Per Minute

**Trigger Signal:** Supplied by HQC-100-PCT-D Digital Photo Cell

The date codes in this application are applied horizontally on the top edge of the labels on some of the production and directly on the crown of the bottles during production of unlabeled products. The codes applied by the Kortho Hot Quick Coder dry instantly even when the surface of the bottle is slightly wet.

The HQC-100-PCT-D Digital Photo Cell trigger was chosen for this application due to its ability to accurately detect the clear plastic bottles. The photocell was calibrated to detect the surface of the bottle slightly upstream of the coder. The Time Delay feature on the HQC Control was used to adjust the position of the code to the centerline of the bottle.



#### High Contrast - Instant Drying Codes

The 2mm high silicone dies produce a very legible code even on the slightly convex surface of the bottles. The bottles are a very thin wall material which flexes slightly when contacted by the silicone type thus allowing horizontal printing with a standard flat type holder. The opaque code marks provided by the hot ink rolls provide a highly visible impression.

## ***Application #2: Acceptance Marking of Components on Inspection Systems***



A manufacturer of precision electronic components required a marking system to apply an acceptance spot mark on assemblies after passing continuity testing. Liquid ink marking systems were not an attractive option due to the potential for possible contamination of the sensitive test equipment. The Kortho Hot Ink rolls provide an extremely clean and reliable marking alternative. Kortho HQC Systems were installed on each of three inspection systems in this facility.

Electronic assemblies are manually placed in a fixture by the inspection system operators. Assemblies which pass all inspection criteria are automatically marked with a 6mm diameter round spot mark. The yellow hot ink rolls provide a high contrast mark on the black plastic components. The instant drying marks enable immediate handling by the system operators.



**Line Speed:** Parts are stationary at time of marking.

**Marking Cycle Rate:** Approximately 12 Cycles per Minute

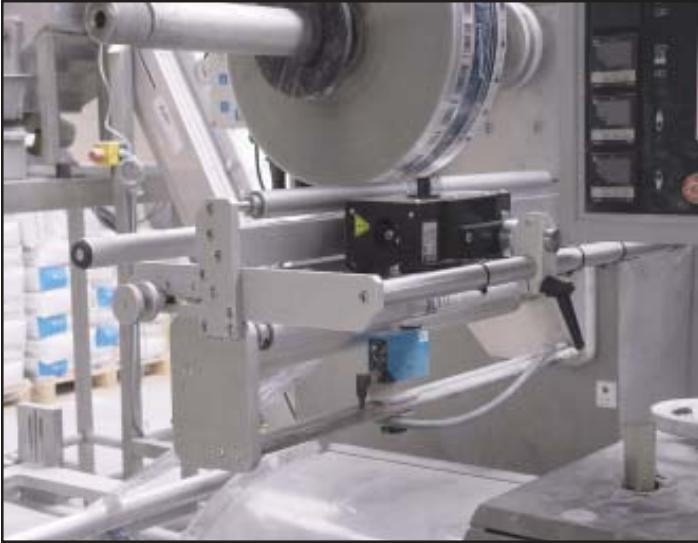
**Trigger Signal:** The Kortho HQC Control is interfaced with the parent equipment PLC which supplies the triggering signal. Acceptance marks are applied only on the components which pass the testing protocol.



The customer's machine shop produced the custom mounting brackets for the Kortho Print Heads and Controls. The results are extremely clean installations in the close quarters of the inspection systems.

A critical issue for all inspection systems is the absolute reliability of the marking system used. The Kortho Hot Quick Coder is often required to remain idle during interruptions in production but provides first mark reliability when production resumes.

### ***Application #3: Applying Multi-Line Product Codes***



A candy manufacturer uses a Klockner-Hansel horizontal flow wrapper to individually pack large gum balls in a colored plastic film. The Kortho Hot Quick Coder is used to apply 3 lines of 2.5mm code to the film including product code, manufacturing date and expiration date.

The manufacturer uses various colors of film in the packaging process and must use contrasting ink colors for the code prints. They chose the Kortho Hot Quick Coder for both economic reasons and for the simplicity and speed of color changes.

**Line Speed:** Film is stationary at time of marking.

**Marking Cycle Rate:** Approximately 60 Cycles per Minute

**Trigger Signal:** The Kortho HQC Control is interfaced with the control of the parent equipment which supplies the triggering signal.

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### ***Application #4: Internal Inventory Control Coding***



A very large vegetable packing company uses 25 Hot Quick Coders on their ULMA horizontal flow wrappers to mark packing date codes on unimprinted plastic bags of fresh cut vegetables. These code dates are for internal use for tracking inventory freshness. The company packs 280 different products at a rate of 3 million bags per week.

As orders are processed, the date coded bags are private labeled for various customers using off-line printed labels which contain product expiration date codes. The labels are placed over the codes applied by the HQC units.





## ***Application #5: Applying Easily Identified Product Tracking Symbols***



A producer of seedlings uses an automated processing system to pick and sort inventory for customers orders. When the various trays of seedlings are picked from the greenhouses, a bar code containing customer order information is applied to each tray. All of the trays are automatically routed to one of three conveyors for transport to the area where the trays are palletized for shipment.

While in route to the palletizing area, a bar code scanner connected to a PLC reads the bar codes and signals the appropriate Korhto Hot Quick Coder to apply a unique colored symbol to each tray which corresponds to the particular customers order.

The code symbols include a triangle, square, round dot and a star which are applied in any one of 6 different colors.



As the trays arrive at the end of the conveyor, the operator simply has to place all the trays with the same symbol on the same pallet for shipment to the customer.

In this application, the colored symbols provide a much faster and more reliable method of visual identification than using alpha/numeric code data.



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