



The ability to send and receive data automatically has sped up and streamlined Chanel's manufacturing processes.

CHANEL, INC.

COMPUTERIZES MANUFACTURING AND DATA COLLECTION

MANUFACTURER CHANEL, INC., recognized as a producer of fine cosmetic and fragrance products, recently decided to enhance the efficiency of its modern manufacturing facility in Piscataway, New Jersey, by upgrading its manufacturing plant, processes and data collection practices. Chanel's progressive management investigated the possibility of further computerizing its manufacturing procedures and methods of data collection, during the planning stage of its manufacturing area upgrade.

Like many other manufacturers, Chanel previously used paper batch sheets to instruct its operators as to which formulas should be produced and in what quantities. This method of record-keeping was labor intensive and time consuming. The company decided that a computerized manufacturing system that would eliminate the need for employees to have to write, total or keyboard-enter any manufacturing data was required. The computerized system would help the company maintain high-quality products, while speeding up production and eliminating the potential for record-keeping and transcription errors.

After evaluating various systems, Chanel chose the Manufacturing Execution System (MES) Dispense Master from Valdata Systems USA, Inc., a New Jersey-

based systems developer. Dispense Master is designed as a bolt-on software program that directly interfaces to the main office Manufacturing Resource Planning (MRP) computer program. Once the production requirements have been scheduled in the MRP system, they are automatically downloaded to the Dispense Master system by means of the Warehouse Management System. Dispense Master then takes responsibility for controlling the manufacturing process and collecting and recording all manufacturing data.

During the manufacturing facility upgrade, the material pre-weigh areas were fitted with touch-screen computer workstations and bar code printers and scanners. The electronic scales used in these areas were directly interfaced to the computer workstations. Instead of the paper batch sheets previously used to show the operators what ingredients and weights were required, the new system displays this information on the computer screen. Dispense Master is a real-time, totally paperless system.

Using the system

The computerized system prompts the operators to scan a bar code label on the raw material ingredient container to verify that the correct ingredient and lot have been selected. Then it prompts them to weigh the specified

quantity. The computer takes weight data directly from the scales and verifies that the required weight is within the tolerance allowed before it will accept and record the weight information. A bar code label, which contains human readable and bar code data, is then printed and applied onto the batched pre-weigh container.

Dispense Master automatically collects production data as it is produced. It eliminates the need for operators to manually write or use keystrokes to enter data, speeding up production and eliminating the potential for recording and transcription errors. Operators only have to touch the computer screen, or scan in bar-coded data, to enter information into the system. The system not only eliminates the possibility of batch errors caused by incorrect data entry, but also incorrect ingredients, incorrect lots or incorrect weights.

Dispense Master also produces a validated audit trail of all transactions, and this information is automatically sent to the company's MRP program, which then updates its inventory and batch files. Dispense Master closes the loop from the shop floor to the office.

After the ingredients required for a formula have been weighed, they are taken to the mixing and blending area. Operators in this area are very mobile, so they use portable computer workstations that interface to the system by radio frequency (RFLAN). These portable systems also support bar code scanning and printing. The operators are prompted to scan the pre-weighed bar code ingredient container labels as they are added to the batch. Dispense Master System will accept only the required containers for that batch. The system will check each ingredient container before allowing the operator to continue processing. When all the required containers have been correctly added, the system will print out a new bar code label to identify the bulk batch.

Chanel requested a custom modification to the software that allows the manufacturer to individually assign mixing tanks to batches based on production priorities. The modification also allows them to schedule the mixing tanks for cleaning or maintenance.

When all the mixing processes have been completed and the finished bulk product is ready to move to the filling line, the system prompts an operator to start transferring the finished bulk product storage containers. Each container is placed on a scale that is interfaced to a computer workstation, the empty container is tared out and the product is transferred. When the transfer is complete, the system prints out a bar code label that is placed onto the container. It is at this stage of the operation that the office MRP system changes the status of raw materials that are work-in-process, to finished bulk product inventory automatically.

Streamlining efficiencies

Dispense Masters method of prompting and then auditing operators through each stage of the manufacturing processes is unique. Its ability to automatically send and



Operators simply scan a bar code label on the raw material ingredient container to verify that the correct ingredient and lot have been selected.



A computerized manufacturing system instructs Chanel's operators as to which formulas should be produced and in what quantities more efficiently and accurately.

receive data from the office MRP system has sped up and streamlined Chanel's manufacturing processes.

The new system has impressed both the operators who use the system and Chanel's management group. George Ott, Chanel's executive director of manufacturing said, "Valdata's Dispense Master System has streamlined our raw material weighing and batch processing operations, while improving inventory accuracy and process control. The Compound operators find the system easy to navigate and use, resulting in improved efficiency."

In fact, Chanel has estimated that the system has increased efficiencies by 20–30 percent. By sending clean, validated production data to the MRP system, the system has extremely high levels of system data accuracy, and the new system helps operators do their jobs—thoroughly and accurately. **GCI**