



# Fnac

Madrid, Spain

# 112

## COMPETITIVE EDGE

Being able to sort and deliver the latest CDs, DVDs and other items before competitors.

## ENHANCED SUPPLY CHAIN

Getting items out as soon as possible to clients is a priority for Fnac, so installation enabled the company to better meet customer needs.

## AUTOMATED SOLUTION

A new automated system, which reduces stop-start bottlenecks and provides an efficient materials handling solution.



## THE CHALLENGE

French retail giant Fnac is one of the biggest sellers of CDs, videos, books and electronic games in Europe. Fnac investigated the potential benefits of changing the company's operation near Madrid to make it more efficient by loading items directly into a sort machine from boxes on arrival at the warehouse. This would effectively eliminate much of the manual pre-sorting operation.

The 10,000 sq m custom-built National Distribution Centre (NDC), near Madrid handles more than 60 million items per year, serving Fnac's 11 stores in Spain.

## THE SOLUTION

SDI offered an alternative solution utilising its sorter that was able to assign goods to individual stores offering even greater levels of efficiency. The installation processes large orders of CDs and DVDs helping Fnac maintain a high turn-round delivery operation, by which more than 95 per cent of goods received at the distribution centre in the morning are on their way to the stores in the afternoon, with around 50,000 items leaving the facility each day.

The NDC receives incoming products from more than 800 different suppliers and approximately 70 delivery vehicles arrive each morning, all with strictly allocated time slots. The goods are depalletised and prioritised, with new release and chart CDs, DVDs and books handled urgently to ensure they reach

stores as quickly as possible and maintain the company's competitive edge.

SDI has also designed the release mechanism so items slide out, gently at a slight angle so to avoid any damage. This makes products easy to pick up and load into totes, which are bar coded with information on final destination. The carefully crafted ergonomic design of the induct operation means items are accessible at a comfortable working height and at an easily handled angle, whilst the automatic format selection also incorporates a user-friendly set-up.

## THE SYSTEM

Once delivered to the NDC in Madrid, all items are taken out of their boxes and given barcode labels that are then scanned to enter goods in the WMS. The items are manually sorted by order of size.

CD and DVD orders of less than 200 items, and books, are assembled on the semi-automated system. Tote boxes for individual store orders are located into shelving frames of twenty work stations and as the item's bar-coded labels are scanned, lights on the frames indicate which tote the goods should be placed into.

Orders exceeding 200 items are handled on the SDI sorter. This comprises of a large carousel that rotates above a series of drop stations assigned to Fnac's 11 Spanish stores with spare stations to handle overflow. The NDC's Warehouse Management System (WMS) generates a small list of items that are required for the day's store orders and these items are loaded into a carrier at the sorter's induct point.

The induct point has a 'Select Format' facility, activated by a simple key stroke on a line-side PC to automatically adjust the carrier to handle CDs, DVDs or videos of different sizes. Pushers feed articles from the carrier one-by-one onto the sorter carousel and their bar-coded labels are scanned. Based on these codes, price labels are printed and dynamically applied to the articles. The process of scanning at the induct will also identify, via the WMS database, any

promotions or special offers currently in operation, in which case another line-side printer will produce the labels for the relevant batches of products.

The sorting process is controlled by counting the items by photocells. These are linked to the system's control logic as they travel round the carousel. The sorter then knows when the specific item has reached the discharge station assigned to a specific store. A solenoid activates a tripper plate and the items are discharged.

From the sorter the full store totes are transported by conveyor into the dispatch area where their bar codes are scanned. A robotic system then collates all the boxes destined for the same store and loads them onto trolleys, on which they are strapped and labelled for final delivery.

*“The thoughtful design features have optimised the speed of the sorter, with ease of operation.”*

*Andres Peres, Warehouse Manager*

*“The SDI sorter is vital in maintaining high throughput and rapid order processing. But as important is the careful thought that SDI has given to the ‘man-machine interface’, so the sorter is very easy to work with.”*

*Luis Jimenez, Fnac*

### ABOUT SDI GROUP

SDI group is an innovative provider of systems and solutions to the retail, wholesale, fulfilment and e-commerce industries for all aspects of distribution centre materials handling.

As both consultants and system integrators, the company provides clients with a total logistics solution package, which includes materials handling consulting, as well as design, engineering, fabrication, installation and integration services.



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