

# Introducing the **Stripe-on-your-belt** from Zebra Technologies

Wouldn't it be great if you could print your warehouse labels wherever and whenever you want them?

No more walking back and forth, no more wasted time, no more labelling mistakes.

*But perhaps carrying a Stripe® printer around with you is a little impractical!*



## The QL420™ mobile printer—the real-life **Stripe-on-your-belt**



**QL420—the mobile, rugged, warehouse label printer with “go anywhere” benefits.**

<i>Performance comparison</i>	QL 420™	Stripe® S600
Print mode	DT	TT or DT
Maximum print speed	102 mm/sec	152 mm/sec
Standard 100 mm (4") label width	✓	✓
8 dots per mm (203dpi) resolution	✓	✓
ZPL II®	✓ X.8 emulation	✓
IP-addressable	✓	✓
Linerless option	✓	✗
Wireless Ethernet LAN (802.11b)	✓	✗
Wired Ethernet	✗	✓
Bluetooth™ connectivity	✓	✗

## We also bring you the **Stripe-on-your-forklift**

With the optional forklift mount you can whizz round the warehouse labelling as you go. The QL420 can also take fanfold media, for which there is a special bin available—ideal for printing pick tickets.

### Over the page....

See how Zebra's Distribution Centre in Preston is using QL420 mobile printers to save time and costs, as well as an easy way to calculate your own potential savings.



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Reliability on demand™

## Case Study

### Zebra Technologies, Preston, U.K.

Zebra's Preston-based distribution centre is the hub for the delivery of all its auto identification products sold in Europe, the Middle East and Africa. The centre receives goods from suppliers and factories around the world – many of which are ready for immediate dispatch to its community of resellers. As each item is received, its product bar code is scanned and matched against a delivery sheet to ensure correct identification. The goods are then packed according to information generated using the code and stored in the warehouse.

However, not all items delivered to the Zebra distribution centre are labelled individually. Often, multiple packages arrive that need to be split down into individual units. Also, some suppliers deliver crates containing many different types of item, all delivered with one packing instruction and one bar code. In these cases, the individual units need to be bar coded in order that they can be correctly stored and successfully retrieved later.

Clive Fearn, Zebra Logistics Manager, said, "This was the part that we found tricky. The goods were scanned and matched by our Baan ERP system, which sent a print message to a Zebra S600 Stripe printer. Operators would have to leave their stations to collect the labels from the printer and return with them to label all the items that they had scanned. It was a bottleneck in the process with people walking back and forth across the warehouse. As all the labels were printed from the same printer, four or five people would be rummaging amongst them to select their own. The margin for error was larger than we would have liked as there was always a possibility that the items would be mislabelled."

### The solution

The Preston distribution centre upgraded its S600 Stripe printer for a number of Zebra QL420 wireless-enabled mobile printers. Workers receiving the deliveries now have their own mobile printers either attached to their belts or worn with a shoulder strap. This means that items arriving without the appropriate labelling can be scanned and a label printed on demand. There is no more walking and no chance of labels being confused.

Fearn continues: "We already had a radio frequency network that we installed in 1998 which we used as a basis for the system. Upgrading the network to the 802.11.B standard gave us 11MB of bandwidth creating fast wireless connections to run the new system over. Now, goods are scanned and verified by the ERP system that sends back the information to generate new labels to lightweight portable printers being used by the operators. The whole process is easy now."

Zebra's Preston distribution centre is taking advantage of the very latest technology to make this solution work. The QL420 is the only wireless-enabled mobile printer capable of printing industry-standard 100mm labels currently on the market. Furthermore, because the QL420 mobile printers use the same programming language as all other Zebra printers including the Stripe S600 they replaced, there was no need for any costly and time consuming reprogramming of the print commands sent out by the Baan ERP system.

### The benefits

As a result of the implementation, Zebra's Preston distribution centre has seen three main benefits:

#### Process Improvement

Since the introduction of the QL420-based solution, the team has achieved near 100% accuracy for the labelling of its inward-bound goods. The savings in terms of not misplacing goods and being able to fulfil orders is immense.

#### Time savings

Since installing the system, the distribution centre has seen time savings of 30 minutes per person per day working in goods inward.

#### Flexibility

The team no longer relies on a single printer to handle the label printing for all the operators. The new solution offers a greatly improved contingency in the rare event of a system failure.

Fearn says: "The QL420 printers save us time, money and space. In fact, the time that we save in not fetching labels alone will make them pay for themselves in just 12 months. On top of that we have a more flexible, more reliable solution. Rolling the same printers out to be used in other applications, such as order picking will ultimately make the investment even more worthwhile."

Here is an example of the savings that can be achieved in an average warehouse operation :

<b>Zebra Mobile Printer Cost Justification Tool</b>			
<b>Example data :</b>	<b>Fixed Printers</b>	<b>Mobile Printer</b>	<b>Annual Saving</b>
number of shifts per week	10	10	
number of hours per shift	8	8	
number of weeks worked per year	48	48	
<b>number of hours worked per year</b>	<b>3,840</b>	<b>3,840</b>	
average number of items labelled per hour	15	15	
average time spent getting labels (mins)	2	0.5	
<b>number of hours getting labels per year</b>	<b>1,920</b>	<b>480</b>	<b>1,440</b>
average labour cost per hour (euros)	12	12	
<b>current cost of getting labels per year (euros)</b>	<b>23,040</b>	<b>5,760</b>	<b>17,280</b>

Visit our special 'wireless' website to download this tool (ROI calculator) and to find the full Preston case study as well as other mobile and wireless case studies and white papers—  
[www.zebraeurope.com/wireless](http://www.zebraeurope.com/wireless)