

# From where

Reverse Vending Recycling may be a regular household term in Continental Europe and the USA, but it has taken a long time to be fully embraced by the British. It is the brain-child of Stephen Hall and Steven Stothard of Reverse Vending Corporation (RVC). The concept has now taken hold of 'the dirty men of Europe'.

## Automated application

RVC distributes and operates reverse vending recycling machines (RVMs), which are fully automated and use advanced technology to identify, sort, collect and recycle used beverage containers (UBCs) – PET plastic bottles, cans, cartons and even paper cups. RVC is the first and only British company to introduce and successfully install this concept in the UK.

Knowing that environmental protection is a focal point for the UK Government

Increasing the amount of recycled waste relies in part on influencing human attitudes and behaviour. A new approach that incorporates an incentive scheme has been developed. **Stephen Hall**, CEO of Reverse Vending Corporation, reports

and the EU, RVMs provide a simple answer to the problems linked to packaging waste disposal. Working in association with several blue-chip clients, RVC has developed two major products of interest to packaging professionals keen to –

■ reVend 100 is a unique stand-alone

RVM which accepts and recycles used paper vending cups. It is the first in this country to handle such containers. It can easily shred and store over 3,000 cups before it needs to be emptied, which is good news for packaging professionals, the vending industry and cup manufacturers.

■ reVend & Spend is a combined bank of vending and reverse vending machines. It is designed to encourage healthier drinks and to drive forward the recycling of UBCs, particularly in the education sector where there are concerns about students' drinking habits and the increases in childhood obesity.

The product rewards university, school and college students, as well as company employees and leisure centre visitors, for choosing healthier drinks and helping the environment through a recycling incentive rewards scheme. Clients can offer benefits to recyclers through incentive point vouchers, tokens, cash refunds or by adding points to loyalty cards by means of the in-built smart card.

## Cashless society

The RVM automatically dispenses rewards for every beverage container recycled. This can be particularly helpful in



Left: Deposit bottle return machine for communal catering / vending, empties are stored in a plastic sack. Right: Deposit machine for crates

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cashless catering operations. If preferred, donations may be transferred to charities by the computer software. The security-printed vouchers can be used to introduce original incentive schemes. Some schools, for example, have linked them to good behaviour and completing homework on time.

Reliable and auditable statistics are recorded online by RVC's electronic data management centre to be published on a client's website and made available to the Government, NGOs and trade associations.

There are 80,000 RVMs installed worldwide, with over 12,000 of these in continental Europe and the UK. The machines even recycle drinks cartons – a persistent bane for the packaging industry.

## How reverse vending works

Reverse vending has been used for over three decades in European markets, where there are mandatory deposits on beverage containers, notes Steven Stothard, Senior Vice President and Chief Technology Officer of RVC. 'The "stand-alone" RVMs, similar in size to traditional free-standing vending machines, are designed to increase the value of the recycling experience for the host and user,' he says.

The recycler places the empty container into the receiving aperture and is guided by instructions displayed on the RVMs' colour monitor. He or she then automatically receives an incentive voucher. 'The RVM needs only a standard electrical socket and no plumbing is required,' adds Stothard.

Built-in electronic software reads the barcode on all types of UBCs, recording the material type and the number of items recycled. A material recognition system may also be used.



Top: reVend & Spend machine. Above from L-R: Bottles are inserted into the machine and reduced in size. The machines can be used for front-of-house recycling in supermarkets.

The items are sorted into separate accumulation bins, according to type and/or product code. By processing the waste on-site, the value of the recyclates is often increased.

This information is forwarded to RVC via an internal modem so no tracking or record keeping is required. Telemetry facilitates remote monitoring of the material flow – UBC identities, material types (differentiating between aluminium and steel cans), material flow (amounts of UBCs collected

each hour, daily, weekly, etc) and volume (the number of containers collected each day, month and so on).

## FURTHER INFORMATION

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