

## Ticketing and Telematics Manufacturer for Public Transport – Generations of *Firsts*

Overview of the company's 60-year development



Almex is one of the oldest and best known ticket machine manufacturer in Europe. In its 60-year history, Almex has developed an innovative *first* throughout each successive generation. Until today its products have shaped the market for mobile and stationary ticket terminals. Today telematics and IT solutions complete the product range for the public transport sector.

It was in 1946 that the company's founder developed the prototype of the Almex Model A, a very advanced device in its day. The Model A was a portable ticket printer designed to store all the ticket sales data twice – on a counter and on an audit roll. The audit roll was a *first* which put Almex at the forefront of ticketing technology. Bus companies were highly

impressed with the Model A. Its reliability and ease of maintenance made it a great success.

Its capability, even in the early days, was unquestionable and in the 1950's a manufacturing facility was set up in the UK with the complete production of the Model A starting immediately.

Over the years, the Model A became the most successful mobile ticket printer in the world. Its market share in UK buses rose to 80 %. In Scandinavian countries its market share was as high as 90 %. Almost one million Model A machines were manufactured up to 1988 and it is estimated that thousands of these are still in daily use.

The name Almex is synonymous with ticketing, and the Model A is synonymous with Almex, which has become a generic name in the transport industry – a true reflection of reliable technology.

The next-generation model to be launched was the Passenger Data Recorder, which was the first ticket

printer capable of downloading sales data electronically. The data was stored in the machine on magnetic tape and for the first time it was possible to obtain accurate transaction data. Such data could be stored and processed without the need to evaluate hundreds of rolls of paper.

The Model E was the next great success story, but the most innovative product in the Almex range was probably the Model M, a predecessor of today's magnetic card readers and smart card systems. A passenger would buy a card that was valid for one, two, five, 10 or 12 journeys. The card was inserted into the Model M on boarding, the machine registered the number of coupon strips previously invalidated and then validated a new one for the current journey. Information about the location, date and start time of the journey were also stored on the card to permit tickets to be checked.



Almex continued to market a wide range of mechanical and electronic ticketing systems and in 1984 the company took over Ticket Equipment Ltd., one of its major competitors, and created Almex Ticket Equipment Ltd., headquartered in Cirencester.

A vital product for the new company was the Timtronic, an electronic ticket printer which was bought by many UK transport companies. In the days before deregulation this was the ticket machine designated for all National Bus Company operations in the UK.

It was in 1985 that the business launched the Almex Magnet – the world's first electronic ticket machine to incorporate automatic fare updates from the depot to the on-bus unit via the driver's "Ace". This simplified the transmission of new fares to the vehicle, and helped to give a competitive edge in the UK's deregulated environment.

In 1988 Almex further expanded with the acquisition of Control Systems Ltd., another competitor. The company was re-named Almex Control Systems Ltd. and was located in Uxbridge, Herne Bay and Cirencester. The roots of Control Systems go back to 1880, when the company's Bell Punch product family was probably the world's first range of automatic ticket vending machines.

After the takeover of Control Systems, the Almex A90 was launched, smaller than its predecessor, yet brought a marked improvement in performance.

The Almex A90, very flexible and easy to adapt to the specific requirements of bus companies, was the first machine to employ a high-speed thermal printer. It became a worldwide success with units still in use today. A further key product on the ticketing market was a portable ticket printer, Microfare, a device with the same range of functions as the successful Almex A90, but

for use in areas where a fixed ticket machine was inappropriate.

At the beginning of the 1990s, Almex concentrated all development activities and production in the United Kingdom. The name change to Metric Group Ltd. followed in 1992. In 1999 the German IT and hardware specialist Höft & Wessel took over the company.

Höft & Wessel was specialised in mobile data recording and ticketing. The company was founded in 1978 by the two students Michael Höft and Rolf Wessel in Hanover, Germany. The corporate merger with Metric formed in 1999 a group of companies with around 500 employees.

On the journey from a minor start-up to a medium-sized company, Höft & Wessel again and again succeeded in entering into new markets by developing new products. It all began in 1978 with the idea to establish a business for selling mobile data capture devices. In the early 1980s, Edeka was the first major customer to be acquired. Based on the first generation of mobile terminals, the specialists went on to develop mobile computer solutions and intelligent cash registers.

In the early 1990s, the company's competence in mobile data capture led to the development of a mobile ticket vending terminal featuring electronic payment facilities and a display of tariff structures. This marked the start of the Ticketing division. Deutsche Bahn (German Rail) equipped its train attendants with 16,000 of the devices and was so pleased with their performance that a few years later they followed up with an order for stationary ticket vending machines from Höft & Wessel. Today the company supplies entire IT systems that feature extensive back office solutions.

The products of Almex and Höft & Wessel ideally complement each other. While Höft & Wessel contributed extremely successful mobile and stationary ticketing terminals, Almex delivered the know-how for installations on buses. By bundling these diverse and comprehensive product developments, Almex became the brand for the entire ticketing division within the Höft & Wessel Group. Since the year 2000, this made it possible to establish an integrated solution portfolio for ticketing and IT solutions for fleet management and back-office activities. As a result, Almex provides public and private-sector transit corporations with a complete range of services throughout Europe – a portfolio that is continually upgraded. Almex is in compliance with ITSO, VdV-KA, Calypso and DaX, the key European ticketing standards. In addition to large-scale European railway companies, its customers also include numerous regional transport companies.

Moreover, the experience gained in the field of stationary terminal construction led to the development of self-check-in terminals for airlines and airports, which are now already being used in the second generation by airlines of note.

Almex meets the future challenges with particularly customers-specific solutions. In case of systems acceptance by staff and passengers is the major factor of success its product development gears to the principles of universal design.

Almex is traditionally represented with a major location in the United Kingdom to this day. Customers in the UK are served via Swindon near London. Its activities across Europe and the World are managed from Hanover, the principal location. In line with its good positioning, Almex anticipates further sustained growth in forthcoming years.

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