

Ferranti Ltd

The Museum holds the Ferranti Collection, which comprises the Ferranti company archive and over 1,400 objects from the period 1882 to 1993, when the company ceased trading. The archives include minute books, photographs, technical and commercial records, and private papers belonging to Sebastian Ziani de Ferranti, the original founder. The objects include computers, generating equipment, navigation and defence systems, and domestic appliances.

Sebastian Ziani de Ferranti (1864-1930) was born in Liverpool and had a remarkable natural talent for electrical engineering. His first invention was a street arc light that he developed when he was just 13 years old. Initially employed by Siemens Brothers in London, he left to form his first company in 1882. In 1887 Sebastian became Chief Engineer of the London Electricity Supply Company. In that capacity, he designed the building and the electrical generating and distribution system for the new Deptford Power Station. Deptford was the largest power station in the world when it opened in 1890. In 1894, he installed an AC (alternating current) street lighting system in Portsmouth – a major step in making AC the preferred system over DC (direct current) for general usage.

In 1896 Sebastian moved his company to Hollinwood, Oldham, where land and labour were cheaper than in London. Sebastian continued to experiment and diversify: for example, he experimented with steam turbines and the construction of their blades. After seeing a flying display in 1909, he designed a gyroscope to help stabilise aircraft. In 1912, the company began to manufacture electrical domestic appliances. Expansion overseas began in 1913 when the Ferranti Electric Company of Canada was created.



The Hollinwood factory.

By 1914, the company was spread over several sites. It suspended normal production during the First World War and concentrated on the manufacture of shells. This was the first of Ferranti's government defence contracts. In the mid- 1920s, Ferranti resumed manufacturing domestic appliances, and began trading in the United States as Ferranti Electric Inc., New York.

Following the death of Sebastian, his son Vincent (1895-1980) became chairman. During the 1930s, the company became closely associated with devices that would feature strongly in the Second World War, including: thermionic valves (vacuum tubes) used in radios and radar, avionics and naval instruments. During the War, Ferranti produced marine radar equipment, gyro gun sights for fighters and one of the world's first IFF (Identification Friend or Foe) radar systems, which reduced the possibility of firing on friendly aircraft or ships.

After the War, the company resumed manufacturing civilian products, but retained a greater interest in the defence sector than had previously been the case. From 1948, Ferranti began to develop guided missiles, especially the Bloodhound, at the Moston factory and later at the Wythenshawe factory. While the defence and communication market expanded throughout the 1950s, domestic products became unprofitable and were dropped. Ferranti became increasingly associated with 'high-tech' devices, including microwave communications equipment built at Poynton, near Stockport.

The Hollinwood factory continued to produce generating plant, such as large transformers. The new Computer Department produced the first Ferranti Mark I computer, a commercial version of the Mark I developed by Manchester University, at the Moston factory in 1951. It was the world's first commercially produced computer. Computer production moved to a factory in West Gorton in 1956, but the Computer Division was sold to International Computers and Tabulators Ltd (ICT) in 1963. However, other sections of the company continued to develop computer technology for more specialised applications. It also invested in the semiconductor research, leading to its development of the first European microprocessor, the F-100L, at its Bracknell plant. Ferranti also produced non-standard silicon chips to suit individual customers' needs.



Microelectronic assembly laboratory, Barrow-in-Furness.

In 1962 Ferranti installed the world's first industrial process control computer, developed as an offshoot of its defence work. Over the following years, similar products were used in aircraft, navigation and defence systems, and the aerospace industry. Ferranti also marketed Europe's first commercially available gas laser in 1967. By 1975, however, the firm was in financial difficulty and the British government bought a 50% stake – a sign of its national importance. Despite this Ferranti expanded throughout the late 1970s and 1980s, notably in telecommunications and computerised control systems.

In 1987 Ferranti merged with the International Signal and Control Group, becoming Ferranti International Signal plc. It soon became apparent that International Signal and Control had been over-valued, placing Ferranti International Signal in severe financial difficulties. As a result, in 1990-91 the Defence Systems division and the guided missile division in Wythenshawe were sold to GEC-Marconi. Finally in 1993 the firm went into receivership and the remainder of the company was broken up.

For more information:

Read Wilson, John F., *Ferranti: A History – Building a Family Business 1882-1975*, Lancaster, Carnegie Publishing, 1998.

The Ferranti Archive in the Collection Centre at the Museum of Science and Industry.

Visit The Electricity Gallery, where a number of Ferranti products are displayed. The Power Hall, which houses a Ferranti inverted steam engine.