



A Brief History of Microtech Gefell

Written by Hugh Robjohns and originally published in Sound On Sound in January 1999

Microtech Gefell GmbH were, in the days of the German Democratic Republic, known as VEB Mikrofontechnik Gefell, a nationalised company originally set up by Georg Neumann in 1943 after his own electrical factory in Berlin (from 1927) was damaged by an incendiary bomb. Gefell is a small town close to the old border between East and West Germany, about an hour's drive from Dresden, where the company retain strong links with the Technical University.

To escape the bombing of Berlin, Neumann, together with his technical director Mr. Kühnast and around 20 employees, set up a new factory in a disused textile mill to repair electrical appliances. The first microphone they made was the CMV 4a 'bottle' using the M7 capsule developed by Neumann and later used in his U47 and M49 microphones, as well as in Microtech Gefell's own current UMT70S and UM92.1S models.

After the war, Neumann set up a new factory in Heilbronn making nickel cadmium batteries, before returning to Berlin to start the company we all know and love, Georg Neumann GmbH (now owned by Sennheiser). However, his former technical director, Mr Kühnast, and most of the original staff remained in Gefell making microphones, and communication with Neumann was maintained, even after the German Democratic Republic nationalised all manufacturing industries.

By 1957, Microtech Gefell had produced their first 3-pattern switchable valve microphone and introduced two more capsule designs, but when the Berlin Wall went up in 1961 all communications between East and West stopped. Because of Gefell's proximity to the East/West border customers were not allowed to visit the company, and even road maps of the area were drawn inaccurately to confuse visitors!

Until 1972 the company had been called Georg Neumann & Co/Gefell, but with communism surging the names of the former owners were obliterated and the company was renamed VEB Mikrofontechnik Gefell – a 'People's' company! Through the '70s and '80s the company continued to develop various advanced technologies, including solid-state microphone amplifiers, and also undertook government-funded development of high-powered industrial lasers. In fact the company still uses a laser engraving machine to put the name and serial numbers onto their microphones!

In 1989 the East German government finally collapsed, the Berlin Wall came down, and the Berlin Neumann company offered to co-operate with Microtech Gefell. Eventually Georg Neumann's heirs reclaimed a share of the company as former owners and, as part of the co-operation deal, the Neumann factory in Berlin tested the various Gefell microphones. Much to their surprise, they apparently found microphone technology more advanced than some of that available in the West.

When Sennheiser took over Neumann GmbH in 1991 they severed all links with Gefell, which became an independent, privately-owned company in 1992. Since then, Microtech Gefell have introduced over a dozen highly regarded microphones for a wide variety of studio, broadcast, PA and measurement applications. Before the reunification of Germany, most of Microtech Gefell's microphones were used by Eastern Bloc broadcasters, and apparently their PM860 can be found in virtually every town hall and auditorium in the former Soviet Union.

Currently under the technical supervision of Kühnast 's son, Microtech Gefell still produce the M7 capsule in exactly the same way Neumann taught the elder Kühnast in the 1940s – hand-drilling each hole in the backplate, making the PVC membrane, and gluing it together by hand, just as Neumann specified. The M7 is currently used in the UM92.1S, the UMT70S, MT71S and UM900 microphones.

Some of the production equipment which Microtech Gefell GmbH use for capsule production employs technology developed by the Soviets before Perestroika. Their most recently developed microphones, the M900 and M910, use a capsule made of a ceramic material moulded under high pressure and plated with chromium – technology developed in Moscow, perfected by Microtech, and unlike anything currently found in Western microphone designs.

The SMS70 series of microphones designed in the early 1970s used a hybrid amplifier with an FET stage – technology which was not adopted in the West until the late 1980s. Microtech's latest amplifier designs use surface-mount device (SMD) technology, and the company also manufactures a complete line of measurement microphones equivalent in specifications and performance to those of Bruel & Kjaer. Clearly, Microtech Gefell GmbH are the equal or better of any of the well-known Western microphone manufacturers and certainly deserve to be taken very seriously indeed.

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