

# VEB Medizintechnik Leipzig - a German Story

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The German Democratic Republic – GDR - was founded in 1949 in the Soviet occupation zone of WW 2 loser Germany. Diving equipment was then manufactured in Leipzig under the “VEB Medizintechnik Leipzig” company brand name MEDI or later MLW.

There were however, no direct traditions in this field. The dominant manufacturer of diving equipment in Germany before the Second World War had been Dräger in Luebeck. After the division into the Federal Republic of Germany (FRG), which was also formed in 1949 from the zones of western allied forces, and the GDR, there were two different countries existing. The GDR tried to be independent from the up going West German economy and wanted / had to get along without imports from other western countries including diving equipment. This happened on one hand, for economic reasons, they had not enough



Former domicile of MEDI in Leipzig, not used today

“hard” currency for imports. Secondly this technique had some military significance and thus was subject to the Cold War prescribed by the Western powers Delivery embargo.

Diving equipment was not offered/manufactured in other countries of the socialist block, at least not in sufficient quantity. So they had to start up in the GDR by themselves from the very beginning, first, of course for the military and professional needs.

Precision engineering and medical technology production had existed in Leipzig before. 1948 several companies were merged by the government to unify as “VEB Medical Technology Leipzig” (VEB = Peoples own Company). A major company of them was “Nitzsche AG”. This company was founded in 1903 by Johannes Nitzsche (1879-1947) in Leipzig who had manufactured cinematographs and films. 1938 Anschütz GmbH from Kiel bought the company.

After the war ended in 1945 the company went into compulsory administration forced by the Soviet Military Administration (SMA), because they had made war-related equipment such as compasses.

So these were more or less the traditions of making diving equipment in the GDR, more precisely in Leipzig.



25 years Nitzsche AG, anniversary Medal



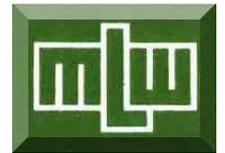
MEDI badge

1952, the VEB of the Central Medical Precision optics has been assigned and the logo used until 1969 MEDI.

1952 - 1958 Head Office Precision Optics,

1958 - 1967 VVB mechanics,

1967 - 1969 VVB medical, laboratory and weighing technology (VVB = Association SOEs)



MLW badge

In 1970 the VEB **M**edical, **L**aboratory and **W**eighing was formed, the logo changed to MLW by 1989.

In the same year, many more, yet private or semi-private, mostly well running companies were affiliated with the state-owned sector, with gentle to/or violent pressure. The combine (Group) was re-organized.

The medical VEB was the so-called parent company of this combine. "And Weighing" then disappeared from the name, but the logo remained that way. Medical and respiratory protection were the main production points of the combine, diving technical articles were just a side branch.

The MEDI diving gear production began in 1954 starting with the MEDI Nixe "Mermaid", a simple O2 rebreather. The initialization came from the almighty SMAD that awaited of a country with submarine escape experience (Dräger U- Boot Rescue) that they could also build O2 rebreathers. By now MEDI had developed and produced rescue rebreathers for mining and chemical industry too and the designing engineers could use these experiences. The Mermaid was produced until 1959.



MEDI Nixe (Mermaid)  
(photo by D. Dekker)



Compressed air diving app.  
MEDI 713 (photo by D. Surani)

This was followed by the first SCUBA gear with a double hose regulator which was made in 1959: the MEDI 713. It was exported in small pieces to other CMEA countries

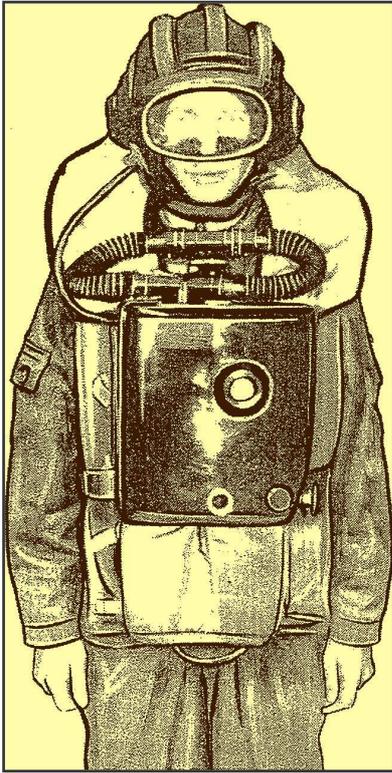
(Council for Mutual Economic Assistance) too, such as former Czechoslovakia. MEDI produced it till 1965.

With its two 3-l-tanks (150 bar, but 200 bar later on) it was intended for short time dives till 20 m depth maximum. The MEDI 713 was a very hard breather but good to handle.

In addition to this light diving gears MEDI produced an complete hard hat equipment also from 1954 to 1969. This was not the intention of the enterprise, but the GDR had to perform reparations to the Soviet Union after the lost WW2. As a small part of it they had to deliver new fishing boats with a heavy diving gear each. So MEDI made copper helmets, boots, sweats and all other parts, without traditions or experiences in this field but in a respected quality.



MEDI-diving helmet



Tank savior RG-UF/M

The story with the panzer savior RG-UF/M was quite the same. The GDR has got all the tanks for the army from its brother, the Soviet Union. These tanks were equipped with unlikely personal rescue system for underwater crossings. But you can't criticize your brother. Therefore we had to realize it by our self. With the experiences from the rescue rebreather for miners and from the Mermaid, MEDI designed an oxygen rebreather and produced it from 1970 to 1989.

At that time it was not sold for private use, but after the turnaround in the GDR a lot of scuba divers all over the world take the rest of the old stocks for shallow dives as an easy and cheap gear. There are a lot of self made amendments presented in the internet to use the RG-UF/M as a nearly modern rebreather.

RG-UF/M = rescue gear for underwater ride / military



Open RG-UF/M



MEDI Hydromat 62028

The SCUBA lite MEDI 713 was followed 1965 by the best product of MEDI, the modular (1- to 3- cylinders) SCUBA rig "Hydromat PTG" (Pressluft- Tauchgeraet = compressed air diving apparatus), first with a two-stage double hose regulator "Hydromat 62004 G01" and from 1970 onwards additionally with the single hose regulator "Hydromat 66" (62017).

MEDI produced this family till 1974 with some light changes.



MEDI Hydromat 66

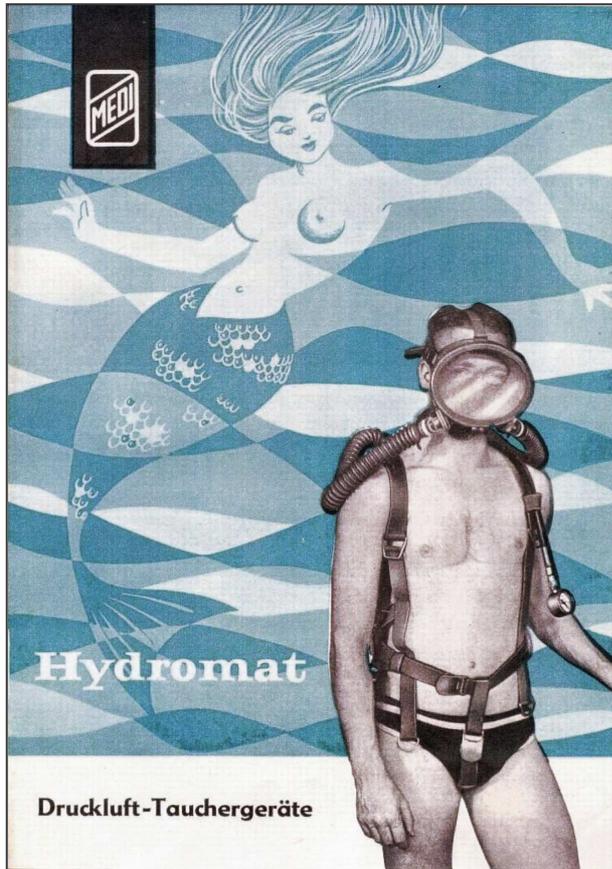


Drysuit Penguin without valves

Additionally MEDI/MLW produced cylinder valves, full face masks, the "Penguin" dry suit and other gear for professional diving.

MEDI and MLW later ran the structural development of diving technology always on fairly low heat. The administration would have preferred an entire stop because diving gear could not be exported to other countries at least for foreign exchange. MLW was much better off with medical and respiratory equipment. The production of diving gear was ceased in 1974 . Only the RG-UF/M as a LVO task (national defense organization) was continued till 1989.

The lack of development capacity, the uncertainty due to lack of tradition and lack of modern materials and technologies resulted to not so innovative products relating to the world market. The designers and divers from outside the enterprise had good ideas, but for realizing MEDI had to stay on the safe side and so they made approved products in accordance with their own technological capabilities.



*Advertisements for MEDI-Hydromat 1964*

But even that was an illusion. Between the military and professional on one side and private use on the other, there was the GST (Society for Sport and Technology, training organizations, etc. for diving) and the diving clubs of major industrial companies, the "centers of the working class", and their institutions. Even they suffered a permanent lack of equipment for training. Courses held at the sea sport schools were dependant to the availability of equipment. The replacement of MEDI713 by the more modern Hydomat series took many years.

For the private use of sport divers in the GDR was hardly anything left of this production. Such ads as shown above could usually cause a weary smile only. Other manufacturers for diving equipment were not available. As a consumer good, they were impossible to obtain in the other socialist countries as well.

Main problems were the use of non-ferrous metals, the galvanic surface protection and modern materials for seals, hoses, straps, etc. Therefore they worked with flat gaskets instead of o-rings, rigging twine instead of cable ties and stainless steel, which was available, instead of chromed brass. The results were partially fine anyway, the Hydromat regulator is in its class in my opinion one of the best. But we were still using double hose regulators with simples drysuits without buoyancy devices as other divers in the world already had switched to modern single hose regulators, neoprene wet suits and jackets.

There were also the very long development times from the idea until production launch in the GDR, due to deficiencies in technology and lack of material and also by an exuberant bureaucracy. Reverse engineering of those products already on the market, plus time delays prevented the competitiveness of the products on the world market. Immersion of MLW therefore served only for captive consumption in the GDR.



*DIY production of regulators*

In addition to economic constraints but also resulted from the exaggerated distrust of government, which they also had for gliders, hang-gliders and ocean sailing boats. Such devices could be used for escaping to the west. The relevance of such "technical republic escape" in the statistics, however, was negligible, but in some cases spectacular, such as the story of a diver who crossed the Baltic Sea with a self-built, gasoline engine-powered scooter in shallow depth. He arrived the "Geedser" fire ship in West German territorial waters.

What remained, was the private competition for MLW by "do it yourself" diving gear in fairly large scale. That was propagated itself in the diving newspaper GDR, POSEIDON, long time, was normal. The entire range was "manufactured", double hose, single hose regulators, suits, fins, cameras, cine cameras, compressors, scooters, navigation devices, ... There was also a intense exchange amongst the private manufacturers. Where the hell did all the material come from?

MLW could hardly move, the constraints were too tight through the increasingly collapsing economy.

After the changes in 1990, the combine MLW was shattered by the "Treuhand" (Org. for handling the state-owned industry of the ended German Democratic Republic). The rest of the diving technology disappeared completely in the scrap presses. Small companies remained such as Leipzig Medicine Technology Ltd. and Medicine & Respiratory Protection. In 1999, the Fraunhofer Society, a famous research institute in Germany, gave a report commissioned by the local province government:



One of the MEDI buildings in Leipzig today

report commissioned by the local province government:

*"Medical technology has in Saxony traditionally a high priority. Until 1990 the industry was essentially run by large companies such as the Transformers and X-Ray Company (TUR) Dresden, Medical Laboratory and Weighing (MLW) Leipzig and Measuring Instrument Company Zwoenitz with more than 10,000 employees. In 1991, the number of companies in the medical field were about 20, with a total number of 4,200 employees. In the following years up to 1995 the number of employees has dropped to about 1,800. A phase of privatization and medical technology start-ups followed. In the present medium size companies carry the remaining business. . . ."*

Well, at least there is no shortage of diving gear nowadays.