



HIGH CUSTOMIZATION IS THE SECRET OF SUCCESS

# *Gym80 International GmbH*

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Gym80 International GmbH manufactures machines and equipment for bodybuilding and medical rehabilitation. Founded in 1980 with its headquarters in Gelsenkirchen, Germany, it currently employs nearly 170 people and has delivered over 1 million machines worldwide. Their most important markets are Europe and the EMEA region, but in Germany alone, around twelve million people train on gym80 equipment.



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#### **High degree of customization thanks to laser cutting technology**

Gym80 places very high demands on the flexibility of its production technology. As a manufacturer of bodybuilding and rehabilitation machines it has found, in the combined laser cutting machines for tubes, profiles and sheet metal from BLM GROUP, a technology that can guarantee their desired versatility. To date, they have purchased two Lasertube systems and two flatbed lasers from the Italian group.

In the Gelsenkirchen plant, the spacious showroom immediately demonstrates the special customer orientation of gym80 International GmbH.

Everywhere one turns their gaze, there are visually attractive bodybuilding and rehabilitation machines of different colors. In the middle, furniture and other furnishings are displayed for the interior design of sports and fitness studios. These accessories are also part of the gym80 product range. Design is very important to the company. This provides a unique selling point in the market, especially compared to Asian competitors.

“Ultimately, our customers are the people who train on our gym machines. They spend their leisure time this way and want to do it in a pleasant environment. That is why, in addition to meeting the training requirements, the machines must also be attractive.” This is how, Simal Yilmaz, owner of the company since 2019, describes his business philosophy. In addition to the highest quality of the products from an aesthetic, mechanical and functional point of view, gym80 offers its customers a very high degree of customization. Some machines have even been gold-plated.

#### **Technology must reflect versatility**

“With BLM GROUP’s laser cutting machines we now produce around 27,000 different types of parts, usually in batches, with a maximum production size of 200 pieces. We also often have to produce customized and prototypes, i.e. one-off parts,” explains Yilmaz, using numbers to describe how the high degree of customization is reflected in the complexity of the company’s production.

Some important components of gym80 products are oval tubes, which are a characteristic element. The ‘Queen of Machines’, as the company likes to call itself, has these special profiles specially manufactured with different cross-sections and thicknesses. They are patented profiles for these applications but are not easily machined with most laser cutting systems.

“For BLM GROUP, our oval tubes did not represent an insurmountable challenge, unlike other competitors,” Yilmaz stated, describing the main reason why the company purchased an LT722D Lasertube system from the Italian group in 2014. “Their technical experts were able to quickly cut our profiles and explained to us how to achieve maximum flexibility in the processing of our oval tubes and other special profiles,” he concludes.

The cooperation between the two companies has existed for almost 16 years with gym80 entering the world of laser cutting technology in 2008 with a combined LT9 COMBO machine from BLM GROUP, which allowed them to process tubes and profiles and sheet metal with high productivity and quality. The technology worked flawlessly, so a second combined machine was purchased shortly thereafter.

#### **Three new laser cutting machines in two years**

Today, the two combination machines continue to reliably produce for the company, and gym80 has added three new laser cutting machines between 2021 and 2022. Together with the LT722D, which continues to do its job consistently with its 2D laser cutting head, the new purchases completely satisfy the company’s laser cutting requirements for tubes, profiles and sheet metal.

In 2021, gym80 purchased a Lasertube LT7 with a 3D laser cutting head and 3 kW fiber source. This

machine for processing tubes and profiles, with bar weights up to 23 kg/m and tube diameters from 12 to 152.4 mm, is still considered the fastest Lasertube system on the market. The same year saw the addition of an LS5 sheet metal system with longitudinal pallet changer and 10 kW fiber source for thick sheet metal. In order to provide itself with the greatest flexibility, the company had the LS5 sheet metal laser configured with a large working area of up to 4,000 mm x 2,000 mm.

All that was missing was a machine for laser cutting of thin sheet metal. For example, gym80 uses stainless steel sheets up to 2.5 mm thick for the facings and shields of its machines and training equipment. In 2022, the company had therefore set its sights on a second LS5 with a longitudinal pallet changer, configured with a 3,000 mm x 1,500 mm working range and a 6 kW fiber laser head, which means that, should the need arise,







even thicker materials can be processed with this machine. Regardless of whether the material is thick or thin, the parts produced with these machines are characterized by very clean-cut edges.

#### Constant process optimization

On all four of BLM GROUP's laser cutting machines, the company takes full advantage of the automation and process optimization options for laser cutting, providing machine operators with maximum comfort in their daily work. Yilmaz, "The machines allow us to change production quickly. Considering our small series and the many individual parts we produce day after day in two shifts, this was also an important decision criterion for us."

In particular, Active Tools play a key role providing maximum automated efficiencies and "we can leave the machines running unattended," explains Yilmaz. For flatbed lasers, for example, the Active Nozzle Changing function is one of the highlights providing fully automated nozzle changes, cleaning and wear control. Active Nozzle Center, on the other hand, simplifies and speeds up nozzle centering, while the innovative Active Camera vision system helps machine operators make the most of sheet metal cutouts. On the LS5, with 10 kW fiber source, the Active Cool function dissipates heat using water to cool the laser head, ensuring consistently perfect cutting quality even with thicker materials. On all four machines, the Active Speed function automatically optimizes the cutting parameters

according to the complexity of the geometries, especially in the most demanding passages. On the Lasertube systems, the Active Scan and Active Weld functions guarantee the highest quality of produced parts. Active Scan measures, in fractions of a second, the real dimensions of the materials to be processed and corrects the production programs on the fly, to achieve perfect results even with twisted and deformed tubes. Active Weld automatically detects weld seams and orients the tubes so that the weld seams are in the desired positions. This offers maximum safety in the production process and reduces scrap.

#### Open options for the future

BLM GROUP's technology offers gym80 maximum flexibility in processing a variety of different materials. "With our laser cutting machines, we consciously look beyond our limits and have opened up

many options for the future," notes Yilmaz. In addition to the technology, the user-friendly software also played a central role in all gym80's investment decisions. For example, the ability for 3D drawings of the tubes and profiles to be cut to be automatically imported and converted from Artube CAD into production programs was key. At the same time, Artube offers the company the possibility of manually adapting the programs if necessary. In the spirit of Industry 4.0, the process is integrated with gym80's ERP system. Yilmaz summarized, "After each of these investments, our machine operators asked to intensify the partnership with BLM GROUP. Also important to them is the speed of response and solution-oriented approach of BLM GROUP's hotline and customer support technicians. And they work on the machines with satisfaction."



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For our machine operators, the speed of response and the solution-oriented approach of BLM GROUP's technical customer support is also important.  
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