

**A GERMAN FAMILY-OWNED COMPANY HAS TO FIGHT HARD
TO KEEP PRODUCING ITS WORLD-FAMOUS PIANOS**



MASTERS OF TONE

Upright and grand pianos are highly sensitive instruments. Those from Wilhelm Schimmel Pianofortefabrik meet the highest demands placed on quality and tone. Every day the company's 190 specialists exercise their exquisite sensitivity and feeling for the finest nuances of perfect tone.

 _DAGMAR DECKSTEIN

 _OLAF HERMANN



You can never take perfection far enough on a piano,” says Hannes Schimmel-Vogel. He sits down on a leather-covered bench in front of a shiny black concert piano, and strokes the keys almost lovingly. The director of the factory in the northern German city of Braunschweig is not a trained piano maker, but rather a business administrator. Members of this latter profession are associated more with a passion for numbers than a pronounced love for music. But Schimmel-Vogel is a striking exception to the rule. The 42-year-old son-in-law of Nikolaus Wilhelm Schimmel, the founder’s grandson, is completely dedicated to the traditional way of making instruments. “Every upright, and every grand piano, is a unique instrument with its own personality and soul,” he says softly as he guides his guests on this day through the production facilities in Braunschweig. With five different production areas on premises measuring 20,000 square meters, the company makes around 1,500 upright and grand pianos a year—by hand of course in the finest quality.

In the “body-building” section of the production facilities, sure-handed carpenters glue the components of a grand piano’s resonance chamber together. The instrument’s perfect sound is due to the wood, which can be up to 300 years old. It is mountain spruce from a part of the Bavarian Forest leased by the company. A few steps away, specialists are pulling 250 steel strings over a cast-iron frame painted in orange-red, which can withstand up to 21 metric tons of tension. With the help of modern computer technology, this frame is designed to be robust yet also to save as much material as possible. Too much mass swallows vibrational energy. The felts on the hammerheads are made of premium-class fine wool from Merino sheep specially bred in Australia. These felts will later enable the strings to sing. “There may be people who make fun of this type of passion for detail,” says Schimmel-Vogel, “but we call it quality.”

For all the love of quality, the company is facing some hard realities. In business terms, the golden days of making pianos lie in the past. In the 18th and 19th centuries, fortunes rose rapidly as composers such as Mozart, Beethoven, and Chopin became the cultural icons of their time. Devoted to these stars, the educated urban classes played their music on many high-grade upright and grand pianos in fine bourgeois salons. These days the world is different, with the tone in the 21st century set by digital downloads. Making music on one’s own piano at home doesn’t have the same prestige anymore, and instrument makers have to fight hard for the remaining buyers. At the same time, competitors from Japan and China are flooding the market with digital pianos. Of the several hundred German piano makers that provided the 19th-century bourgeoisie with instruments, only around a dozen remain. The middle class on the piano market is stagnating, while the trend is diverging toward two extremes: cheap, or exclusive and expensive.

Schimmel is one of the few piano makers that continue to exist. To remain competitive in this tough business, the Braunschweig-based company has had to change a lot—yet was still unable to avoid →

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- 1 THE FELTS ON THE HAMMERHEADS ARE MADE OF FINE WOOL FROM MERINO SHEEP SPECIALLY BRED IN AUSTRALIA.**
- 2 IN ONE CONSIGNMENT ZONE THE KEYBOARD COVERS ARE REMOVED FOR PAINTING. THE PAINT IS APPLIED IN 13 STEPS AND THEN POLISHED TO A HIGH GLOSS.**
- 3 THE TIMBRE INTONATION IS SHAPED BY SEVERAL HUNDRED NEEDLE PRICKS INTO THE FELTS ON THE HAMMERHEADS—88 OF THEM ON EACH INSTRUMENT.**



Hannes Schimmel-Vogel,
head of instrument making

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- 4 ASSEMBLING A GRAND PIANO: MORE THAN 10,000 INDIVIDUAL PARTS ARE ATTUNED TO EACH OTHER WITH THE HIGHEST DEGREE OF PRECISION.**
- 5 THE CAST-IRON FRAME FORMS THE BACKBONE OF THE RESONANCE CHAMBER, WITHSTANDING MORE THAN 21 METRIC TONS OF TENSION FROM THE STRINGS.**



The expertise and skill needed to build the housings, the love of wood as a natural product, and the artistic design of the individual inlays have been cultivated and passed down since 1885. It takes two years of training to become a master, and twenty years to become a concert technician.



insolvency in 2009/2010. Today the specialist company is struggling to regain its place in the market, step by step, with smoother and more efficient production (see the report to the right) and a new multi-brand strategy. For example, the medium-priced segment sold under the “Vogel by Schimmel” brand now includes less expensive models made at a factory founded in 2004 in the Polish city of Kalisz. Schimmel is having even lower priced instruments for beginners made by licensed producers in China under the “May Berlin” name—and the Chinese market is showing promising growth. The top line runs under the “Schimmel” name, with superior instruments of the highest quality made in Braunschweig from around 10,000 individual parts.

Some of the company's most important capital consists of the sense of hearing in certain very specialized staff members. At the end of the production chain, it's time for the workers known as “intonateurs.” These

individuals examine the finished pianos in soundproof rooms at the end of the production halls. Their job is to bring the timbre in the tones to life. They press the 88 white and black keys, bend deep down into the instruments to do painstaking needlework on the hammerheads and then smooth them. Time cannot play a role in this process. “If an intonateur says he needs three more hours, then he gets these hours,” says Schimmel-Vogel. “We never, ever, make any compromises in our precision work or the quality of the tone.” ←

GETTING THE RIGHT BEAT

How commercial factors at a production enterprise can be brought into harmony with individuality and quality.

“We’ll have to see,” “I can’t say exactly at the moment,” and “Perhaps we’ll manage it today”—these are the types of responses that Hannes Schimmel-Vogel used to hear two years ago on inquiring when certain piano parts would be delivered. Today things have changed. Big boards, known as control boards, mean that all employees can see at a glance which production steps still need to be done and where exactly each instrument is along the line. “Without these control boards,” says Schimmel-Vogel, “we would never have made it through the crisis.”

Schimmel-Vogel and his staff have gone through hard times, and they still aren’t completely in the clear. But step by step, the small Braunschweig company is fighting its way back into the front ranks of premium piano makers. Porsche Consulting helped Schimmel to find and eliminate its weak areas. With the help of value-stream mapping, they identified inventories and production steps that were leading to excess output and defects. Schimmel and Porsche worked together to develop the Schimmel Production System (SPS), which rapidly resulted in marked improvements. “The key to success was the training of the entire staff—from craftsmen to Mr. Schimmel-Vogel—every day over a period of three months,” says senior project manager Siegfried Runkel who has been advising Schimmel since 2010. A consignment zone known as the “supermarket” now helps the employees ensure that production runs punctually, smoothly, efficiently, and in takt—the right part at the right place at the right time. In contrast to before, components and instruments are now assigned set places in a clear structure and can be accessed with a single hand movement. And thanks to the control board, responses like “We’ll have to see” are a thing of the past.

The results are impressive. The throughput time for producing a grand piano, for example, has dropped from 8 to 6.4 months. In the wooden parts segment, the throughput time per component has fallen from 30 to 17.8 days. Dr. Ulrich Guddat, a partner at Porsche Consulting, also points out the clean, tidy production surfaces and workbenches between the well-lit offices of the master builders. “Schimmel’s employees approved all the restructuring measures from the existing budget” he observes. “Not a cent was spent on extra investments for that.” But that didn’t mean the job was easy. “It took nearly a year until all the employees were convinced that the changes were necessary,” says Runkel. Today it’s clear that the main benefit of the new, more transparent production processes is the fact that their own jobs are now easier.

For the next step, company head Schimmel-Vogel and the Porsche consultants want to integrate the successes achieved thus far into a vision of the future in the form of a balance sheet plan. A balance sheet and profit-and-loss calculation will be used to derive planning targets and to have them approved by the management team. After all, the reduced inventories and shorter throughput times are also having an effect on financial indices such as overall capital turnover, liquidity, and return on overall investment. Guddat calls this demonstration of the financial effectiveness of lean processes and their projection into the future a “talking balance sheet.” For Schimmel-Vogel, it is “music to my ears.”

