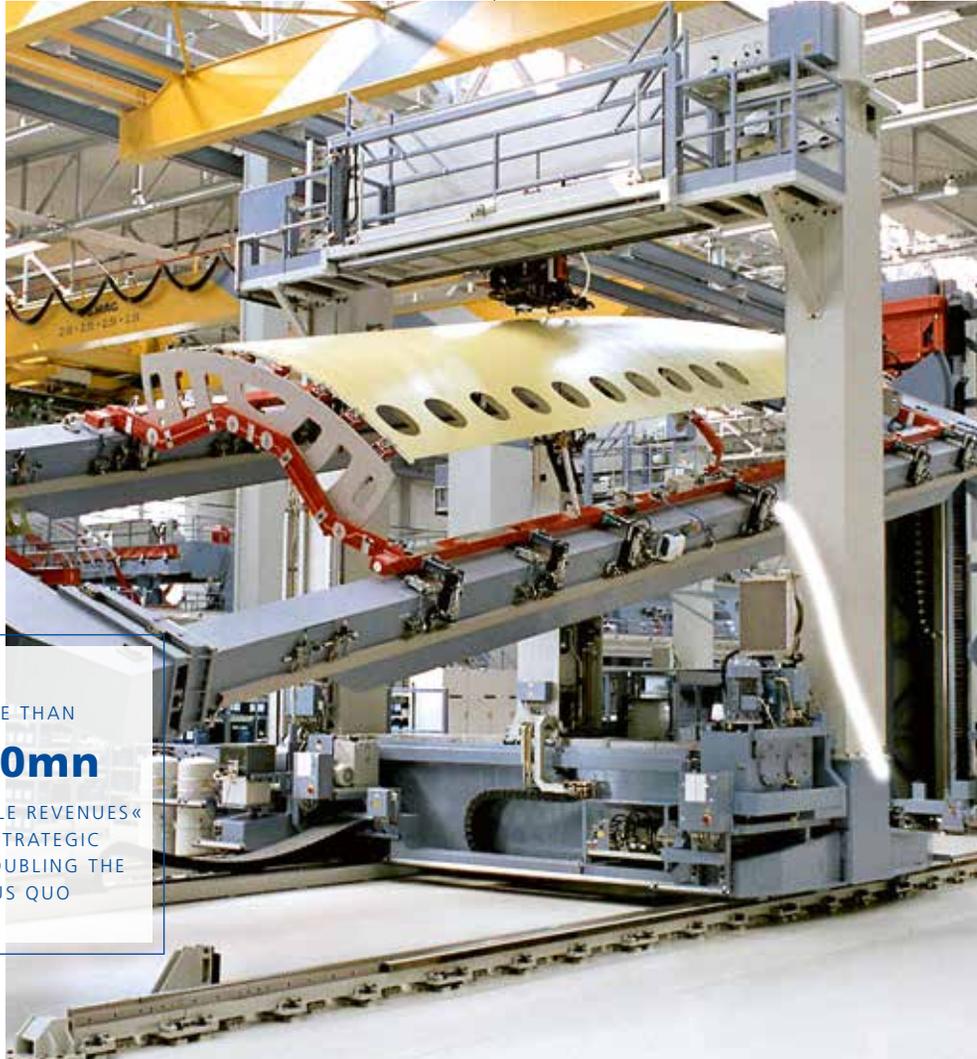


BROETJE-AUTOMATION GMBH



» MORE THAN
€200mn

IN PROFITABLE REVENUES«
IS OUR STRATEGIC
GOAL – DOUBLING THE
STATUS QUO

BROETJE-AUTOMATION IS EXPANDING. ITS
PLANS FOR GROWTH ARE BECOMING A REALITY.

**HOW A MID-SIZED COMPANY
IS GETTING STRONGER.**



BROETJE-AUTOMATION

IN FIGURES

BA operates worldwide with subsidiaries in the US and China as well as several sales and service centres in America, Asia and Europe. In the 2013/14 financial year (30 September), the company generated more than 90 million euros in revenues with 550 employees, including 384 at its two German plants in Wiefelstede and Jaderberg. Its latest acquisition has added revenues of around 40 million euros and 120 employees.

“That’s precision craftsmanship.” Really? Looking up at the vast machines, almost 15 metres high, in the production hall in Wiefelstede in Lower Saxony, the description doesn’t seem to fit. And yet it captures the essence of Broetje-Automation’s business. After all, the robots that rivet the individual parts of an aircraft fuselage work with a tolerance of just 0.3 millimetres, a little more than the diameter of a human hair. Precision mechanics in its highest form. They perform minute operations on large components – on fuselage shells, tailplanes and wings. Again and again, always in the same high quality. An aircraft expands by around half a metre when it flies at high altitudes with low air pressure. Despite this, it is held together by several hundred thousand rivets – thanks in part to the precise work of machinery and plants made by Broetje-Automation.

The company has set itself the goal of developing and building the most effective production plants in the world for the aerospace industry. In this way, it helps its customers to optimise their production processes and give them a competitive edge. Today, 35 years after its foundation, Broetje-Automation (BA) is the uncontested world market leader in the development and production of fully automated riveting plants for the assembly of aircraft, in other words airplanes and helicopters.

However, riveting machines are just one part of the process chain in aircraft manufacturing. Other connection technologies are used, too, because modern technical fibres such as carbon fibre composites (CFK) have different processing and riveting requirements compared to classical metal structures. BA has developed automation solutions for all these technologies. The mid-sized company learns something new with every machine it installs, because every customer has its own production process. Based on this, BA has developed the capability to plan and construct complete turnkey production lines with both its own machines and third-party products. The company claims to be an expert for efficient production processes in its target industries, and with good reason.

MORE INTERNATIONAL, BIGGER, MORE TECHNOLOGIES

The company now plans to build on these strengths and grow. It wants to enter new markets and offer new technologies – to hone its portfolio to perfection. Over the next three years, it intends to more than double its revenues. “200 million euros” is the target for 2017. This would make Broetje-Automation the leading provider in the global market for production solutions in the aircraft industry.

“We have to develop a systemic dimension, because our customers’ wishes are growing more diverse,” Bernd Schröder, one of the company’s two Managing Directors, defines the sales target. “Only if we grow can we broaden our scope both internationally and technologically to better capture the opportunities in the aerospace industry.” (see “Products for a growing market”, page 28.) Aircraft manufacturers are stepping up their monthly construction rates, and production processes are transforming. These changes trigger investments, from which BA aims to benefit.

It helps that the company is part of its new owners’ core business. Before 2012, BA was just a three-percent entity in the three-and-a-half billion revenue pool of a family-owned corporation. “Investment decisions can take a little



PRODUCTS FOR A

GROWING MARKET



Anyone who reads the daily reports about ailing airlines and cost pressure in the aerospace industry may find the forecasts hard to believe: the aircraft industry is growing and has major plans. The number of passenger airplanes will double in the next 20 years from around 17,000 in 2014 to more than 34,000 in 2033. Because most machines currently in operation will have to be renewed by then, 30,000 jets will have to be produced. The world is bigger than Europe: the aspiring middle classes in emerging countries have money and want to travel.

In future, they won't only be sitting in airplanes made by Airbus or Boeing in European or American factories. Established manufacturers have long been making at least parts of aircrafts outside their domestic markets, in the case of Airbus in China even complete machines. What's more, China and Russia as well as India have their own growing aircraft industries. Building aircraft is also a question of prestige. Broetje-Automation aims to equip these plants and has already fulfilled its first orders.

30,000

NEW AIRCRAFT
IN 20 YEARS

longer, and sometimes less attention is paid to smaller units given the priorities of larger ones," recalls Ingo Körner, Co-Managing Director alongside Bernd Schröder. The two colleagues at the helm of BA have been planning to expand for years, in this case through organic growth and acquisitions.

"WE HAVE BECOME ENTREPRENEURS."

"Investments that boost the company's value are particularly encouraged by financial investors – that's something else we like about DBAG," emphasises Schröder, and mentions in particular support for M&A processes.

So far, BA has made four acquisitions with the participation of DBAG. Immediately after changing partners, it purchased a company in Toulouse, right on the doorstep of the headquarters of a key account. This enabled BA to expand its position in the strategically important French market. The acquisition of a small company specialised in optical sensors formed the basis for a new product range, which served to accelerate the riveting process.

The portfolio of a machine construction company in spring 2014 provided BA with know-how and patents to expand its own technology base. To this end, the company established a subsidiary, BA Composites, to develop and produce machines for processing fibre composite parts – in other words, machines to process the same material that is used increasingly often in new aircraft types. BA also sees great potential in the automotive industry. It has already developed a first machine, the result of proprietary research and development, to which it has now allocated a growing budget.

The company's most recent acquisition was considerably larger: at the end of 2014, Broetje-Automation took over the aircraft assembly technology section of Dürr machine and plant engineering group. This is a decisive step for BA on its way to becoming a full-range supplier. The company is also considerably closer to achieving its 200-million-euro sales target. Previously, the market for aircraft assembly technology was characterised by suppliers that only covered individual steps along the aircraft production process. Through this acquisition, BA has improved its capability to offer complete assembly lines from a single source.



»INVESTMENTS THAT BOOST THE COMPANY'S VALUE ARE PARTICULARLY ENCOURAGED – THAT'S SOMETHING ELSE WE LIKE ABOUT DBAG.«

*Bernd Schröder,
Managing Director*

While BA holds a leading position in drilling and riveting systems for aircraft construction, its new acquisition offers materials handling equipment and systems for positioning and measuring components. "That opens up growth opportunities that the two companies would not have been able to capture on their own," according to Schröder, BA's Managing Director.

The service business is also set to bring growth. Its risk profile differs to the production of machines and plants and fluctuates less, thus flattening the sales curve. The service business is considered less risky overall, but earns higher margins; as a result, it increases the value of the investment. As with other companies in its portfolio, before entering into the investment, DBAG urged the management of BA to capture this potential. A few months after changing partners, BA Services was founded. From five million euros initially in service revenues, the subsidiary now generates more than 20 million euros, and this figure is set to increase in future. The company has also doubled the number of employees in this business to around 100.

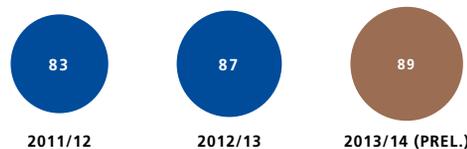
According to Bernd Schröder, one of the key benefits of the new shareholder structure is a "greater degree of freedom" for himself and his management colleague. As he says, "We have become entrepreneurs." So have some dozen managers in the company who like Schröder and Körner also participate in "their" company and benefit from its success directly. This also means that everyone pulls together, something that is particularly important

during a period of major change in the company. "We are turning BA inside out and becoming an international company with global branches. Growth will mainly take place at foreign plants. To get everyone on board as we progress along this path, we need to communicate," Schröder explains. He and Körner inform employees openly and regularly about the company's targets. Everyone should know where the company is heading. "We want to become a multinational competence team." The idea of partnering with a private equity company originally gave rise to requests by employees at the time. In addition, the work's council talked to colleagues at other companies in DBAG's portfolio: "But the business logic convinced the sceptics," says Schröder.

Some 15 kilometres from the company's current headquarters, a major construction site can be seen. The company is investing here and pooling its two existing sites to offer more attractive working conditions for employees, create more efficient production processes, and improve communication. A clear sign of expansion and change. And of strength: "We also want to show how modern and innovative we are."

<p>€5.6mn INVESTMENT OF DBAG</p>	<p>77.9% SHARE OF DBAG FUND V</p>
<p>18.8% SHARE OF DBAG</p>	<p>MBO TYPE OF INVESTMENT</p>
<p>MARCH 2012 INITIAL INVESTMENT</p>	<p>548 EMPLOYEES</p>

REVENUES €mn



Wiefelstede (Germany) / www.broetje-automation.de

FURTHER PORTFOLIO COMPANIES