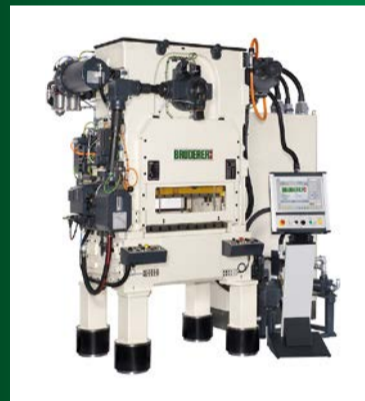


# STAMPER 2017

The magazine for high-performance stamping technology



## The stage is set at Blechexpo for the BSTA 280F-88 B2.

On stand 7208 in hall 7, BRUDERER presents a stamping line with a BSTA 280F-88 B2 high-performance fixed-stroke stamping press under production conditions. This latest addition to the BRUDERER range excels with micrometre precision. Its high productivity is music to the ears of high-volume producers of stamping parts.

S. 2/3



## Deep drawing from a new perspective.

Today, nearly one century after its foundation, MARK Metallwarenfabrik in Upper Austria is one of the leading suppliers of deep-drawn products in Europe. They rely on BRUDERER high-performance stamping presses for highest precision and guarantee their customers 100 % good parts.

S. 4/5



## Goldy goes for the gold in auto industry.

The family-run company Goldy Precision Pvt. Ltd. in India primarily produces stamped parts for the automotive industry. 95 % of all cars on India's roads contain a Goldy product. The Goldy Group has acquired BRUDERER high-performance stamping presses to increase its production capacity and now wants to conquer the European market.

S. 7

## EDITORIAL

**A wide spectrum.**

In this edition of STAMPER, we take you on a journey around the world. We have features on precision manufacturing from Japan and India, the art of deep drawing from Austria and high-speed high-volume production from Germany. This bouquet of different applications is an impressive illustration of the versatility of our fully-automatic stamping presses.

Our customers have a wide spectrum of requirements, and in order to fulfil their wishes, we regularly add new machine models to our range. Our latest addition is the BSTA 280F-88 B2 high-performance stamping press, which will be unveiled at Blechexpo in Stuttgart from 7 – 10 November 2017. Thanks to the cooperation of our partners, we are able to present a stamping line in action, equipped with an innovative press tool with integrated camera that distinguishes between good and bad parts and automatically sorts them. The BSTA 280F fixed-stroke stamping press is ideal for the mass production of microparts for the electrical, electronics and automotive industries, as significantly higher speeds can be achieved compared to a machine with an adjustable stroke at the same given stroke length. Visit us on our stand 7208 in hall 7, enjoy the BRUDERER hospitality and discover the advantages of the new fixed-stroke stamping press.

BRUDERER builds machines exclusively in Frasnacht, Switzerland. With our services, however, we go wherever our customers are. We continually invest in our subsidiaries around the globe. In Germany, for example, an extension was inaugurated two years ago, and in India, we moved from Mumbai to Bangalore last year and now offer machine refurbishments in the new workshop. This benefits our customers in the major industrial regions, who profit from a wider spectrum of services on their doorstep.

The multitude of uses of a BRUDERER high-performance stamping press includes much more than we can show you here in this issue of STAMPER. We would like to thank those customers who have given us an insight into their company, which is not to be taken for granted and is very much appreciated by us and the readers of STAMPER.

I wish you an interesting and enjoyable read.

Andreas Fischer, CEO

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Publisher: BRUDERER AG, CH-9320 Frasnacht  
Phone +41 71 447 75 00  
stamper@bruderer.com, www.bruederer.com

Project: BRUDERER AG, CH-9320 Frasnacht

Articles: Ing. Norbert Novotny, (X-TECHNIK), Werner Waltenberger, (ATELIER AM SEE), all other articles: Isabelle Raper, (BRUDERER AG)

Translation: Grazia Malberti (INTERBRIAN SNC), Isabelle Raper (BRUDERER AG), Freeman Huang (BRUDERER MACHINERY (SUZHOU) Co., LTD.)

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# Precision stamping at its

At Blechexpo 2017 in Stuttgart, BRUDERER is showcasing the latest model of their BSTA series: the high-performance fixed-stroke BSTA 280F-88 B2 stamping press. With the BSTA 280F, customers have the possibility to achieve higher production speeds with a fixed stroke length. For example, they can run the machine at speeds of up to 2000 spm with a stroke length of 12.7 mm. With a comparable adjustable-stroke press, this speed is 'only' possible with a stroke size of 6.5 mm or 8 mm.

Industry professionals in sheet metal processing from all over the world will meet at Blechexpo in Stuttgart from 7 – 10 November 2017. The international trade fair for sheet metal working is on the up, with 15 % growth in exhibition floor space in comparison with the last event. BRUDERER exhibits in hall 7 on stand 7208. Visitors will be able to see a stamping press in action, producing connectors for the electrical industry at 1000 strokes per minute with 19 mm stroke length. The machine is equipped with an innovative press tool from the German tool maker Leicht+Müller. This PRO INNO stamping tool features an in-die camera by Otto Vision, which measures the parts and decides on good or bad parts. The bad parts are subsequently sorted by a cylinder with linear motor. As the stamping press with stamping tool does not normally produce bad parts, BRUDERER staff on the stand will introduce some on purpose in order to demonstrate the principle. The visualisation is shown on two screens which are installed into the operating cabinet, one for the BRUDERER data and one for the Otto Vision in-die camera.

The BRUDERER BSTA 280F stamping press is available with a tool loading area of 750 mm or 880 mm and is fitted as standard with a BBV 180 mechanical feed unit. Further feeder options are the BBV 191, the servo feed units BSV 75 or BSV 170 and the gripper feeder BZV 61. The BSTA 280F is the successor of the BSTA 300F which was discontinued in 2013. The fully-automatic stamping press with its associated control unit offers state-of-the-art technology. In line with BRUDERER's drive for energy efficiency, the machine features all the usual energy-saving standards.

The new model BSTA 280F takes customer needs for faster presses into account. This fixed-stroke machine can be operated at higher speeds than a press with an adjustable stroke at the same given length. However, one has to accept that only one stroke length is available at a time. The following combinations of stroke length and speed are possible:

Fixed stroke	Speed
12,7 mm (1/2")	2000 min <sup>-1</sup>
15,9 mm (5/8")	1800 min <sup>-1</sup>
19 mm (3/4")	1700 min <sup>-1</sup>
25,4 mm (1")	1500 min <sup>-1</sup>
31,8 mm (1 1/4")	1500 min <sup>-1</sup>

**“Many people don't know that with a BRUDERER fixed-stroke stamping press, one can get 40 % more out of the machine at the same stroke length.”**

Josef Hafner, Head of R&D

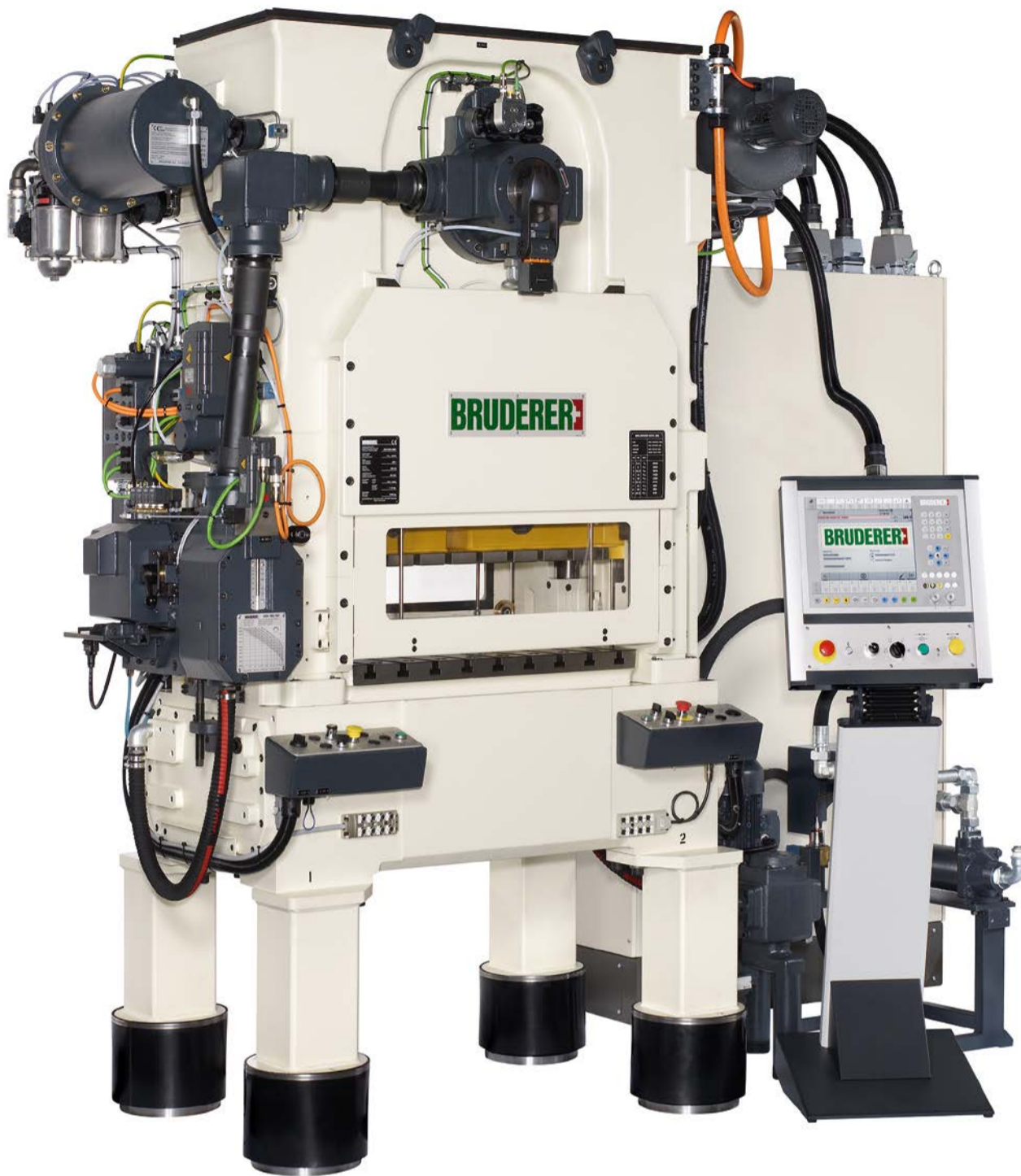
This stamping press is especially suited for applications with higher volumes, for example for the electrical or automotive industry. At the BRUDERER stand 7208 in hall 7, visitors can gain a first-hand impression of the new fixed-stroke stamping press and its many advantages. To name but a few: highest precision when stamping, faster speeds coupled with greater stroke length and the possibility of adjusting the ram height during stamping or regulating it according to various criteria. In special cases, a higher first-cut speed can be achieved in combination with longer strokes and speeds, which can lead to a cleaner cutting surface of the stamped part.

The BSTA 280F is the most productive stamping press of its class. The high ram acceleration means, however, that high-end press tools need to be used, such as the one developed specifically for connectors by Leicht+Müller. During the exhibition, 1000 connectors per minute will be

## Facts and figures of the Leicht+Müller PRO INNO press tool

- Stamping part: Connector, loose falling
- Parts per minute: 1000 parts/min
- Stamping material:
  - Stamping material: CuSn6 DIN 1777
  - Strip thickness: 0.3 mm
  - Strip width: 18.5 mm
  - Stroke length: 19 mm
  - Feed length: 5.0 mm

# best – a symphony of speed and precision.




The picture shows the BSTA 280-88 B2 with BBV 180. The BSTA 280F-88 B2 with BSV 170 will be unveiled at Blechexpo 2017 in Stuttgart.

produced loose falling, using a stroke length of 19 mm. Everything is optimized with micrometre precision: a symphony of speed and precision. The 0.3 mm x 18.5 mm strip material is made of copper alloy CuSn6 in accordance to DIN 1777, the feed length used is 5.0 mm. Leicht+Müller Stanztechnik GmbH is a long-standing partner of BRUDERER. Since 1985 they have been testing and using stamping tools on BRUDERER stamping presses. This includes, for example, multi-tools, 2 parts per stroke, with vision control in the

tool as well as stamping tools for single-row or two-row modules for the manufacture of multi-part contacts which fully integrates a number of steps in one stamping process. Another mainstay is the production of stamped parts. With exclusively BRUDERER stamping presses from 25 to 80 ton press force working round the clock in three shifts six days a week, millions of stamped parts in the range of 0.05 – 1.2 mm thickness are produced for various industrial fields.

The stamping line exhibited at Blechexpo is equipped with a BRUDERER BSV 170 servo feed unit which allows to freely select the feed angle and the acceleration value and therefore offers high flexibility. Variable pilot release, programmable feed direction and complete integration into the control unit are further key features. The BRUDERER BSV servo feed unit is especially suited to delicate strip materials and applications where long or variable feed lengths are required.

The peripheral equipment is supplied by long-established BRUDERER suppliers. SLE contributes the Microlub SLP strip lubrication with 60 mm spray chamber, Noxon the single decoiler with PHB 1600 straightener and Fahrer the sound-proof cabin. 

**BRUDERER: hall 7, stand 7208**  
**BSTA 280F-88 in operation with tool and peripherals**  
[www.blechexpo-messe.de/en/blechexpo](http://www.blechexpo-messe.de/en/blechexpo)

Josef Hafner, Head of Research and Development,  
 E.BRUDERER MASCHINENFABRIK AG

## BRUDERER at trade shows 2017 / 2018



FABTECH (USA)	06.11. – 09.11.2017
BLECHEXPO (Germany)	07.11. – 10.11.2017
METALEX (Thailand)	22.11. – 25.11.2017
IMTEX Forming (India)	25.01. – 30.01.2018
SIMTOS (Korea)	03.04. – 07.04.2018
10. Kongress Stanztechnik (Germany)	09.04. – 10.04.2018
MACH (UK)	09.04. – 13.04.2018
Intertool (Austria)	15.05. – 18.05.2018
STANZtec (Germany)	19.06. – 21.06.2018

## Facts and figures of the BSTA 280F

- Press force: 280 kN
- Speed: Min. 100 – 2000 spm
- Tool loading area: 750/880 mm
- Fixed stroke: 12.7/15.9/19/25.4/31.8
- Shut height: According to customer specification
- Strip inlet height adjustable: 50 – 120 mm
- Strip inlet width: Max. 230 mm
- Drive power of main motor: 22 kW
- Weight: Approx. 5600 kg (with BBV 180)
- Feed units:
  - Standard: BBV 180
  - Options: BBV 191, BSV 75, BSV 170 or BZV 61
- Equipment (variable)
  - Motorised strip thickness setting
  - Pneumatic roller contact pressure
  - BRUDERER press force monitoring
  - Mechanic add-on components for the TDC encoder of external devices
  - High-precision ram height adjustment in the range of 2 µm
  - BRUDERER tool monitoring, digital 8 inputs/ outputs
  - BRUDERER tool monitoring, analogue 8 I/O
  - Control panel cabinet
  - Customer-specific error messages 16 I/O

# The art of deep drawing.

**MARK Metallwarenfabrik has perfected the art of deep drawing for almost a century. For the production of about 1.8 billion deep-drawn parts annually, besides multi-station and transfer presses, fully-automatic stamping presses are used. Amongst them two high-performance stamping presses from BRUDERER, which are ideally suited to deep drawing due to their excellent performance values.**

*Author: Ing. Norbert Novotny / x-technik*

The success story of MARK Metallwarenfabrik GmbH began in 1920. In what was then their Spital am Pyhrn plant, they focused on the deep drawing of precise metal parts for the footwear industry. In almost a hundred years, a lot has changed at MARK: The core competence of deep drawing was expanded and skills were added. "Today, we supply our products to various sectors, such as the automotive industry, medical technology, electronics and electrical engineering, construction and consumer goods," says Herbert Mayr, DI (FH), Vice President Technology at MARK.

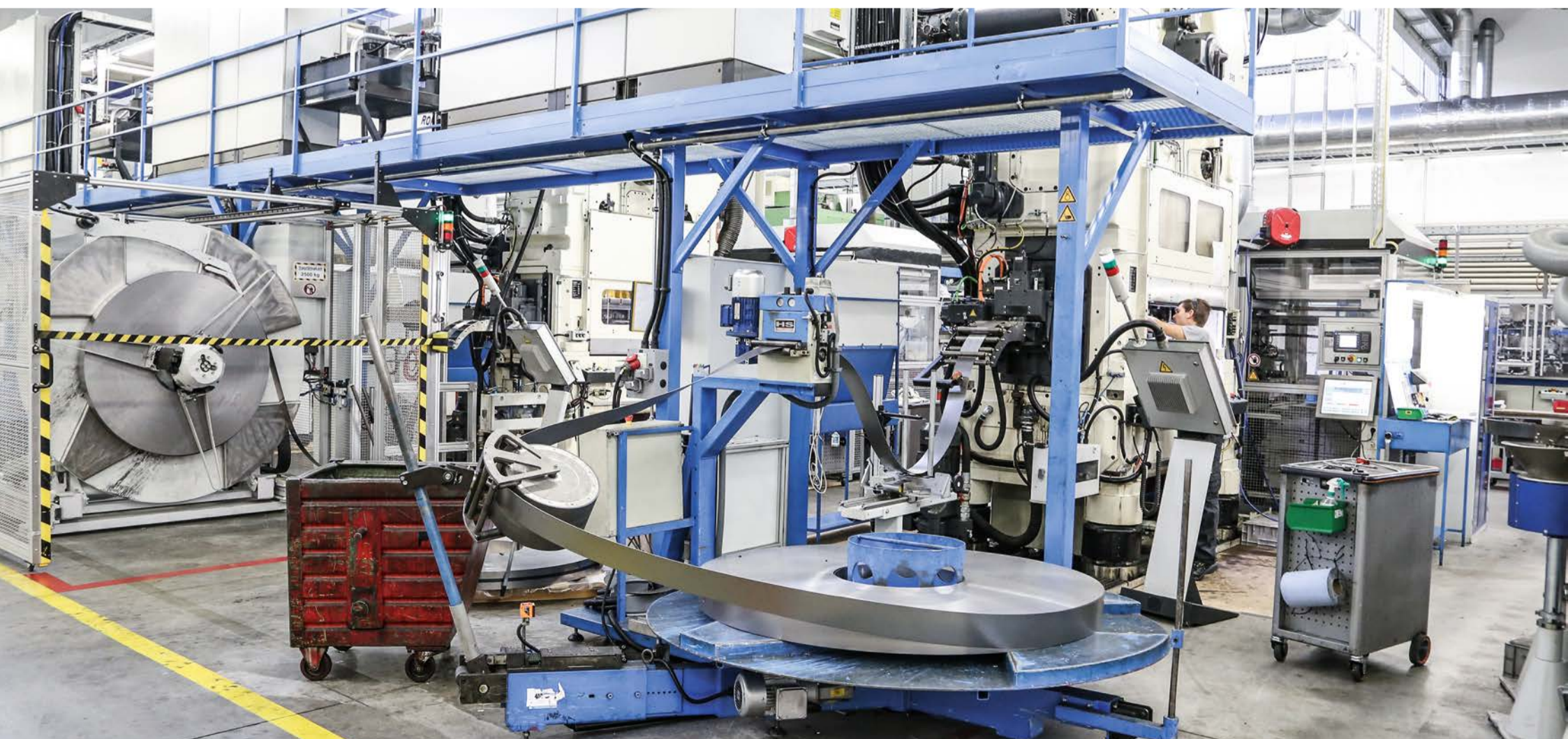
In 2001, the company moved into new premises, where they enjoy over 12 000 m<sup>2</sup> work space, state-of-the-art machinery and spacious offices. To cope with further large orders from the automotive industry, the plant is now being extended by another 10 000 m<sup>2</sup>, and the current work force of 350 employees will be increased by 100 in the next few years. Mayr sums it up: "Our core competence still lies in deep drawing, and this is also our passion. We are one of Europe's leading suppliers of high-precision deep-drawn parts with part diameters of 2 - 80 mm, a maximum drawing length of 120 mm and material thicknesses of 0.15 - 2.5 mm."

#### **11 000 tons of sheet steel per year – 100 % good parts.**

The automotive industry now accounts for over 85 % of MARK's business. "Almost every car, regardless of which brand, contains approx. 150 parts which are made by us, ranging from parts for brake systems, air bags and fuel injection systems to socket housings for car lamps and connectors for turbo chargers," says Mayr. One of MARK's strong points is their ability to supply parts which have been subjected to an automated 100 % sorting (i.e. 100 % good parts). "Because of the stringent safety and quality requirements, especially in the automotive industry, the inspection of the parts is critical in this process. After deep drawing and degreasing, each individual component enters an area where it is thoroughly checked using cameras and eddy current testing," specifies Mayr. The assembly and testing department is the fastest growing area within the company, a testament to its importance. It will take up almost half the space in the new factory workshop. The Upper Austrian metal working factory processes about 11 000 tons of sheet steel annually on two separate production lines. Larger parts are manufactured on 300 ton multi-station and transfer presses, whereas parts with a shorter drawing length but requiring higher stroke rates are made on 80 - 160 ton stamping



The BSTA series of BRUDERER stamping presses are ideally suited to deep drawing due to their impressive performance characteristics.



MARK's own engineering department in the old plant in Spital am Pyhrn builds all peripheral equipment for MARK Metallwarenfabrik. The metal working factory is a one-stop resource for all press requirements.



**“One of the key parameters for deep drawing is the stamping force before BDC (bottom dead centre) and this is where the BRUDERER stamping presses achieve top values. We as the specialists can truly say this: BRUDERER offers a real deep-drawing press.”**

DI (FH) Herbert Mayr, Vice President Technology at MARK

presses in a progressive stamping process. “An order for a new part is first of all assessed in our R&D and design department, where feasibility studies and the parts design are carried out. For the manufacture of the complex transfer and progressive die tools we can of course fall back on our in-house toolmaking department. Thus we can offer our customers guaranteed availability, time and cost advantages and high flexibility,” explains Mayr.

**Ideal characteristics for deep drawing.**

Among the stamping presses in use are also the two aforementioned BRUDERER stamping presses. The Swiss firm BRUDERER is exclusively represented in Austria by Schirnhofner GmbH. “When searching for a deep-drawing press in 2013,” remembers Mayr, “we were comparing the technical characteristics and stamping forces of the short-listed machines and noticed that the BRUDERER presses scored best in an area that is most important to us, namely the stamping force before BDC (bottom dead centre). Depending on the deep-drawn part, we require a high force and torque as soon as possible, e.g. 30 mm before BDC.”

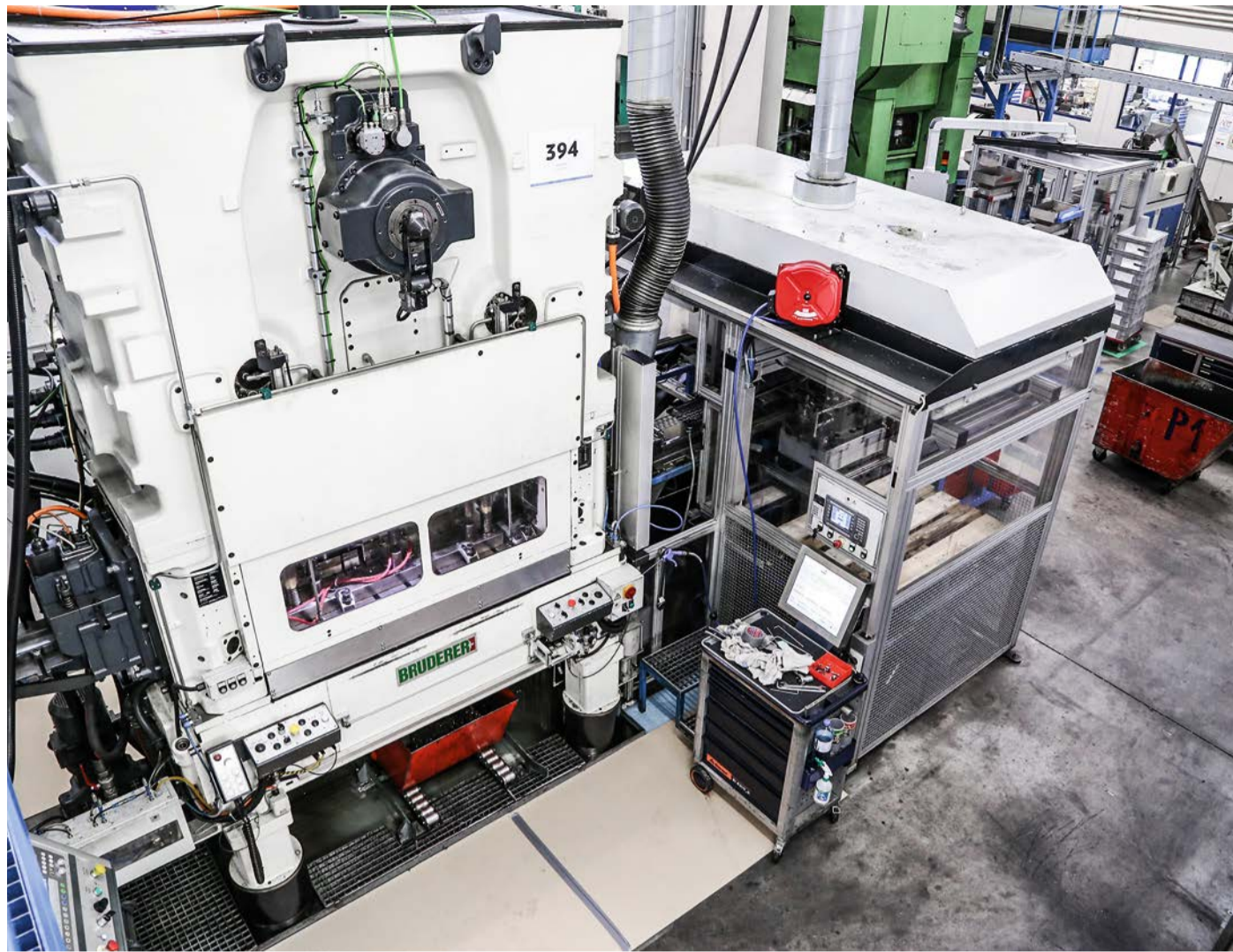
The technical data turned out to be reliable and have now been tried and proven in practice. Thus two years later, a second BRUDERER press was purchased. “Both machines have since given reliable service, to our entire satisfaction. We as the specialists can truly say this: BRUDERER offers a real deep-drawing press,” says Herbert Mayr, who is responsible for investment in machinery and equipment.

**“Both machines have since given reliable service, to our entire satisfaction. We as the specialists can truly say this: BRUDERER offers a real deep-drawing press.”**

**Higher productivity – reduced tool wear.**

MARK also had other important requirements for its machines such as high productivity and availability and long tool service life. On both counts the two BRUDERER presses delivered excellent results. Mayr is thus full of praise: “The stamping presses have performed faultlessly ever since their commissioning. They are outstanding in terms of productivity and low tool wear.”

MARK eventually decided on two BSTA stamping presses with a press force of 80 and 125 tons. BRUDERER claims that thanks to their unique lever



In terms of productivity, availability and press tool service life, the BRUDERER presses deliver excellent results.



MARK manufactures about 1.8 billion deep-drawn parts per year.

system, the load acting on the ram during the production process is distributed across the whole system. This load distribution, together with the absolute minimum clearance in the main and connecting rod bearings, is a crucial factor in the long life and consistently high precision of the machines. “A ram guide system located exclusively at strip level prevents deflection of the punches in the press tool and thus contributes to a maximum tool service life,” adds Mayr. He also appreciates the extremely responsive clutch and brake unit which ensures minimum braking distances and brings the press very quickly to a standstill: “This feature has often helped us to avoid unnecessary tool repair costs.”

Finally, it is the machine availability which is the deciding factor in favour of BRUDERER and is the main reason why in the next few weeks, another BSTA stamping press each will be delivered to Spital am Phyrn and the MARK factory in Slovenia respectively. 🇸🇰



**“ ‘Precision – Swiss made’ is a quality pledge which has been instrumental in the success of the companies BRUDERER and Schirnhofner in Austria for nearly two decades. The high degree of vertical integration of the Swiss manufacturer, combined with continuous product improvements, offers the customer maximum flexibility in customising their stamping line.”**

Mario Schirnhofner, Managing Director of Schirnhofner GmbH



**MARK is a medium-sized family-owned company headquartered in Spital am Phyrn in Upper Austria. They supply high-precision deep-drawn metal parts for applications in the automotive industry, medical technology, electronics and electrical engineering, the construction industry and for consumer goods. For almost 100 years their name has been synonymous with quality and innovation in the world of deep drawing.**

# The four cornerstones of success.



JANDC CEO Jimmy Tseng.

## JANDC prides itself in the rapid delivery of stamped parts.

JANDC CO., LTD., headquartered in Kanagawa in Japan, is a specialist supplier of stamped parts used for electronic components and in the automotive industry to customers in Japan, China and overseas. Equipped with the latest technology, they have high standards in machining and are especially proud of their unsurpassably fast lead time from receipt of the drawings to the finished product. They are able to make this incredibly fast delivery possible thanks to their powerful production network centered in Asia and their highly efficient processing, enabled by the clear division in their production processes.

## A BRUDERER press is a dream come true.

The CEO of JANDC, Jimmy Tseng, used to work at a stamping company in Taiwan. The company had BRUDERER presses at their factory and it was then that he gained his first experience with BRUDERER presses. He was impressed with

the high precision and the ease with which accurate settings were possible during tool setup, thanks to the flexibility of the machine to adapt to different tools. To be able to manufacture around the clock without problems and with long-lasting precision stability gave him great peace of mind. These were the beginnings of his dream: one day, when he ran his own company, he would want to own BRUDERER presses.

In 2012, Jimmy Tseng established JANDC in Japan. Three years later, JANDC took part in the MF Tokyo Metal Forming & Fabricating Fair organized by the Japan Forming Machinery Association. At the exhibition, the booth of JANDC and BRUDERER happened to by chance be next to each other.

BRUDERER CEO Andreas Fischer attended the fair, and although Jimmy Tseng and Andreas Fischer had known each other for some time, they were surprised at this unexpected meeting. This accidental reunion served as a trigger to re-introduce BRUDERER presses to JANDC. Jimmy Tseng, convinced of the highest quality and reliability of BRUDERER presses, used the opportunity to make his dream come true and to purchase a press from BRUDERER Presses K.K. in Japan.

## The four cornerstones of success.

Firstly, JANDC is equipped with a wide range of high-tech facilities. In their parts machining department, their milling, grinding and electric discharge machining can reach tolerances of  $\mu\text{m}$ . In the moulding department, they design high-precision moulds with a 3D CAD/CAM design system.

Secondly, JANDC has a philosophy which is centered around "high quality, reasonable price and short lead time". Specialized team work is the key. All processes starting from the drawing to the final product are divided up in such a way as to achieve the best possible manufacturing efficiency. Each specialist works in their own specific area and they can reliably achieve an amazingly short lead time. The JANDC business department handles orders efficiently and rapidly and offers a flexible service to deal with urgent requirements on occasions like the sudden breakage of parts during mass production. Simple parts can be delivered the next day. If it is a group of moulds, excluding plates, it will take 4-5 days on average.

JANDC's powerful Asia-centered manufacturing network is another of the cornerstones of their success. JANDC runs their overseas factories 24 hours a day in a shift system, which improves the production efficiency, lowers the cost and shortens the lead time. This expands their capability to respond to customers' requirements.

The final cornerstone is quality assurance. In order to reliably achieve a short lead time, JANDC places high priority on quality assurance in the production of precision parts and moulds. In every process, all parts are tested and measured in a homothermal laboratory by a three-dimensional measuring instrument before shipment. Inspection sheets are completed after the test and packed with the parts.

## A new challenge for JANDC.

Over the years, JANDC has purchased several BRUDERER presses. It is an investment that Jimmy Tseng found invaluable in terms of performance, precision and reliability. This year, JANDC decided to purchase another BSTA 510-125 B2 and the cutting-edge feature of a BPG 22. This press is capable of punching at a full load of 51 tons from the first spin and offers smooth, easy and trouble-free manufacturing of high-quality products. JANDC is ready to manufacture the next generation of high-precision products that will be in demand in the future. 🇯🇵

## Facts and figures about JANDC

- Established: 2012
- Headquarters: Kanagawa (Japan)
- 26 employees (51 in related companies)
- 9 locations worldwide, centered in Asia
- Business:

Machined parts business (precision machining of parts and samples, design and production of moulds and manufacturing of tools and jigs)

Tools business (press tools from design to manufacture, mass production of stamped parts)



JANDC Co., LTD. headquarter in Kanagawa, Japan.



Precision made by JANDC.



Trusted technology: BSTA 510-125 B2 with a planetary gear box BPG 22.

## Japan operation base

- Yokohama Head Office, Yokohama Factory, Nagoya Office, Kyoto Office, Tokyo Showroom

## Overseas base

- Shin Fu Machinery Co., Ltd.
- Kunshan Heting Precision Electronics Co., Ltd.
- Suzhou Hede Precision Electronics Co., Ltd.
- German Branch Office

## History

- 1974 The Chairman Tseng Hsinfu set up Taiwan SHIN FU MACHINERY CO., Ltd.
- 2006 Jimmy Tseng established KUNSHAN HETING PRECISION ELECTRONICS Co., Ltd. and started a part-manufacturing business to supply Japanese enterprises in China
- 2011 JANDC Mould business office as the predecessor of JANDC CO., Ltd. started business in Yokohama as a private business
- 2012 JANDC Mould private business was recognized by JANDC CO., Ltd.
- 2014 As business grew, JANDC moved to its present location as a head office and set up the Yokohama factory. At the same time, the Nagoya and Kyoto offices were established
- 2015 Tokyo showroom was set up  
Started another new facility at KUNSHAN HETING PRECISION ELECTRONICS CO., Ltd.

# Goldy invests in new factory to become global supplier.

Goldy Precision Stamping Pvt. Ltd. is a well-established, family-run supplier of automotive components and other stamped parts based in Nashik, India. Nashik is situated in Maharashtra, the leading automotive industrial state of the country, where global giants such as Bosch, M&M etc. are located. Goldy's new facility opened in 2017 and contains state-of-the-art equipment for precision stamping, including two BRUDERER presses which were installed in April 2017. This expansion has added 1400 m<sup>2</sup> to their production space and is hoped to increase their manufacturing capacity to about 300 million parts per month by 2020.



Model of the factory, where two BRUDERER presses were installed in April 2017.

The Goldy group of companies employs around 250 staff and consists of their headquarters in Nashik, Goldy Precision Stamping Pvt. Ltd., and two factories in Verna, Goa: Goldy Auto Stampings Pvt. Ltd., founded in 1993, and Goldy Circlips and Retainer Rings, established in 2002, which was merged with Goldy Auto Stampings in 2013. Goldy later decided to diversify into pharmaceutical packaging and founded Goldy

Finepacks Pvt. Ltd., which produces PET bottles. The Goldy group of companies has six directors who are all family members, Mohan R. Raikar, Anand Raikar, Shrirang Raikar, Manisha Raikar, Sidhesh Raikar and Jayesh Raikar.



Goldy employees at a training course in Switzerland in March 2017.

Goldy Precision Stamping Pvt. Ltd. was founded by Mohan Ramakrishna Raikar, the current Managing Director, as Goldy Press Tools in 1982. He chose the name Goldy because his forefathers were artisans of gold jewellery and in his younger days he used to help his father in making jewellery the traditional way. As he went into engineering and none of his brothers continued with the traditional craftsmanship, Goldy was decided upon as the name for the new company.

In 1996, his son Sidhesh Mohan Raikar joined the business as a trainee engineer and became

Director of Operations and Marketing in 2000. He has a Bachelor in Mechanical Engineering and also holds an MBA from Pune University. Mohan R. Raikar started the business as a tool room where he manufactured press tools for Hindustan Aeronautics Ltd. Thanks to continuous investment in top quality machinery and employee training, he was able to gradually add more products to his range: parts for shock absorber valves, transmission, carburettor and brake system components and gaskets. They now have 95% of the market for valves for shock absorbers in India and also export to Brazil, Thailand and Poland.

**“Currently 95% of vehicles on the road in India have a Goldy product inside them.”**

**Sidhesh M. Raikar**

The Goldy Precision Stamping factory is equipped with 23 presses, a mix of Japanese, Taiwanese, Indian and Swiss presses. Tool production is undertaken in-house, producing for example progressive die multi-cavity tools with 6 stages. “We currently use high standard tool steels such as M2, and eventually plan to move to carbide inserts. We have invested in tool room machinery and equipment that is capable of manufacturing carbide tooling,” explains Mangesh Choudhary, Works Manager.

Goldy Precision Stamping produces precision stampings and sheet metal components for the automotive, aerospace and electrical industry and other industrial applications. 80% of turnover is on account of domestic sales and 20% is export business. The quality of their products is the result of thorough planning and stringent testing and their quality systems conform to ISO/TS 16949:2009. They can stamp any type of sheet metal from 0.08 mm to 8 mm thickness with diameters from 3 mm to 350 mm. The raw material is imported from countries like Germany, Sweden and Japan, since material of the required quality is not available in India.

#### **BRUDERER is a must for European production quality.**

Their current production capacity is 75 million parts per month. “Acquiring two BRUDERER presses will help us enhance our capacity by 135 million parts per month,” says Sidhesh Raikar. He purchased a BSTA 200-70 BE and a refurbished

and retrofitted BSTA 25-65 with B2 control in 2016, after a visit to BRUDERER headquarters in Switzerland. “I really liked the state-of-the-art machines I saw and made up my mind to buy B-control machines,” recalls Raikar. “We located two machines and wanted to place an order, but unfortunately the machines were sold in the meantime. So we picked up the next opportunity on available machines and now have two presses.”

Sidhesh Raikar is convinced that BRUDERER machines are a must to meet European production quality. He found BRUDERER open to discussions regarding pricing and finding solutions to fit their needs, and he knew that he could rely on their strong service support provided by BRUDERER Presses India in Bangalore. His decision to purchase BRUDERER machines was based on four key factors: “Firstly, BRUDERER is a maintenance-free, reliable machine and process, allowing us to focus on improvements rather than spend resources on maintenance of machine and process. Secondly, there is a need to double the output with the same number of machines to meet the ever-growing demand. BRUDERER is a natural choice given its high speeds and quality stamping capability. Thirdly, with the unique lever system and the way the machine is built, we feel that the life of our press tools will increase exponentially and this will give us long continuous hours of production runs. And finally, BRUDERER allows us to take advantage of technology, eliminating the inconsistency of manual processes and employ people efficiently for what they are meant for.”

“Give the customer what he wants – at the right time, in the right quality and at the right costs,” is how Raikar sums up the secret of the success of the family-owned business, run by a second generation who are strong believers in quality, continuous improvement and innovation. This has led them to being a top-class supplier in their country and they are now heading to be a global supplier. 🇨🇦

## Facts and figures about the Goldy group

- Established: 1982
- Headquarters: Nashik (India)
- 250 employees (of which 160 at Nashik)
- 3 facilities in India
  - 1 plant in Nashik for the Automotive Industry
  - 1 plant in Goa for Pharmaceutical Packaging
  - 1 plant in Goa for the Electrical Industry
- Products:
  - Shock Absorber Damping Valves, transmission parts for automobiles with automatic punching lines
  - Fabricated and powder-coated Electrical Panels with Automatic Turret punching and press brakes
  - PET bottles and labels for pharmaceuticals and medicines
- Clients:
  - Tenneco Automotive, Al-ko Spain, S V SHOCKS Finland, Gabriel India Ltd., Mando India, Endurance Systems, KYB India, Dana, Siemens, Showa Munjal, Carraro India, ZF transmissions

## History of Goldy group

- 1982 Started tool room and manufactured press tools for Hindustan Aeronautics Ltd in Nashik in name of Goldy Press Tools
- 1990 Stamping of Shock Absorber Valves Renaming the company as Goldy Precision Stampings Pvt Ltd.
- 1999 Transmission Components
- 2002 Carburettor Components Started Company in Goa for the Electrical Industry
- 2005 Brake System Components & Gaskets
- 2007 Implemented ERP
- 2012 Exports of Shock Absorber Valves Started Goldy Finepacks Pvt (pharmaceutical packaging)
- 2013 Optical Auto Sorting Machines installed
- 2014 CNC wire cut machine in oil base installed for manufacture of dies
- 2016 High speed finishing systems for shock absorber valves installed from Germany
- 2017 New facility to be operational with state-of-the-art presses for precision stamping
- 2020 To be a global precision high-speed stamping company with a turnover of INR 1 billion or USD 15 million

# A successful connection: ERNI and stamping technology by BRUDERER.

**They are the essential bridges in almost all electrical devices which we use day in, day out: connectors. As a leading manufacturer of connectors, ERNI keeps the world running in every aspect of life. One of their secrets of success lies in their production site at Adelberg in Germany.**

ERNI connectors are used in devices in almost all industries: automotive, transport, LED, medicine, communication, consumer goods and general industrial applications. In addition to manufacturing a myriad of connectors, ERNI offers a strong service portfolio: their electronics manufacturing services (EMS) range from electronics development through the assembly of printed circuit boards using pressfit or soldering technology to inspection technology, electronic packaging and cable connector assembly. ERNI belongs among other things to the first producers of the DIN 41612 connector which is used worldwide.

#### Over 60 years of German-made quality.

ERNI Production & Co. KG is part of ERNI Electronics and belongs to the international ERNI Group of companies which was founded in 1947. At present the ERNI Group employs some 1100 people, achieving annual sales of around 160 million Euros. The headquarters of ERNI Production & Co. KG are situated in Adelberg in the German state of Baden-Württemberg. Since it was founded in 1956 it has also been a manufacturing base, thus ERNI has been offering their customers German-made quality products for over 60 years.

Outside of Germany, ERNI has another important manufacturing operation in Lamphun in Thailand, creating synergies that impact positively on the manufacturing process of various parts.

Bernd Leonberger, head of stamping technology at ERNI in Adelberg, is convinced that without the highest precision in manufacturing, it is not possible to compete in the electronic connector segment these days. „The requirements are steadily increasing. Whilst in 2004, tolerances of three-hundredths of a millimetre were acceptable, currently this figure is around one-hundredth of a millimetre or less. In order to maintain these values, we need high-performance stamping presses. And we have the best – from BRUDERER. It is not without reason that we heavily rely on BRUDERER presses in our stamping shop. And we have never been disappointed,” says Leonberger. The ever increasing demands made on connectors are the driving forces of ERNI's quality system. ERNI is pursuing a “zero defect” production, combined with continuous improvement of corporate processes.



Great future potential – stamping parts made by ERNI.

#### Highest precision with BRUDERER stamping technology.

ERNI exclusively uses BRUDERER stamping presses in the range of 250 to 500 kN, which together produce around 5 billion parts per year. In order to achieve these volumes, the high-performance stamping presses are in use around the clock on seven days a week throughout the year. „This is another reason why we relied on BRUDERER right from the word go,” adds Leonberger. „We have been working with BRUDERER stamping technology since 1984. And in all these years we have never had a mechanical defect, despite the fact that the machines are running day and night. No other manufacturer can offer us this level of quality.” Impressed by the reliability and high quality of the BRUDERER stamping presses, ERNI has decided to also opt for BRUDERER technology when it comes to feed units. All stamping presses in Adelberg will be retrofitted with BRUDERER servo feed units. „We need this,” says Leonberger, „because for the 0.8-size connectors, the BRUDERER BSV 75 offers exactly the precision required for these parts.”

#### Annual service and in-house press tools.

There are further practical reasons why ERNI has decided to work with one manufacturer's brand. „Our machine operators all encounter the same system. This simplifies the operation and at the same time increases the process reliability,” explains Leonberger. In order to maintain process reliability during continuous operation, comprehensive annual inspections and servicing of



The ERNI delegation during their pre-delivery inspection of the BSTA 280-88 B2 at BRUDERER Frasnacht. F.l.t.r. Sven Epple, Ronald Baiker (BRUDERER), Bernd Leonberger, Eric Klingler.

all BRUDERER stamping presses are carried out. In the course of this, everything is measured precisely and adjustments are made where necessary to ensure absolute accuracy, for example the ram position. Bernd Leonberger is convinced that this represents a worth-while investment for ERNI. „This is the only way to maintain such high precision throughout the complete production cycle in continuous operation.” It follows that all press tools are designed and constructed in-house. For as many as 1000 items, currently 200 press tools plus various conversion options are in use.

This exemplifies ERNI's comprehensive expertise in terms of toolmaking. For such high-precision products, a largely unmanned production can only work if all press tools are optimised down to the last detail.

ERNI currently employs 80 staff just in toolmaking alone in Adelberg, of which 16 are solely responsible for press tools and their maintenance, working in two shifts. „If you have a connector with a contact distance of just 0.8 mm, the punch only has a size of 0.2 mm x 0.8 mm in the die,” specifies Leonberger. „To achieve this requires the utmost precision and vast experience on the part of the toolmaker. And I am sure that these precision requirements for press tools will increase further in the future.”

#### Securing the future with precision and know-how.

In order to maintain their high standards, continuous training and further professional development is a key issue to ERNI. This not only applies to production, but extends to all departments and functions. For example, all employees of the Thai subsidiary ERNI Electronics Co. Ltd. are trained in Adelberg. By producing cables and connectors in Thailand, ERNI is well positioned for the international market and is therefore looking toward the future with confidence.

The trend towards ever smaller connectors continues. In the area of electromobility, the weight of the vehicles will be reduced further. At the same time, more and more connectors will be required. Already today, 1500 connectors are built into one car. The more accurate they have to be, the more likely it is that they have been produced by ERNI - manufactured on high-performance BRUDERER stamping presses. ■



Around the clock – production in Adelberg.

#### BRUDERER AG

Egnacherstrasse 44, CH-9320 Frasnacht  
+41 71 447 75 00, info@bruderer.com

For more information about BRUDERER and our products, services and subsidiaries, visit [www.brunderer.com](http://www.brunderer.com)

# BRUDERER+

PRECISION – SWISS MADE