

150  **HÄNDLE**  
1870 | 2020



WE KNOW THAT THE MOST VALUABLE RESOURCE AT OUR DISPOSAL IS THE TRUST THAT OUR EMPLOYEES AND CUSTOMERS PLACE IN US.

CONTINUITY AND EXPERIENCE ENSURE THAT THIS TRUST IN HÄNDLE IS SUSTAINED EVERY DAY.

BUT SUCH TRUST IS ALSO BUILT FAR MORE ON RELIABLE ACTING AND DOING.





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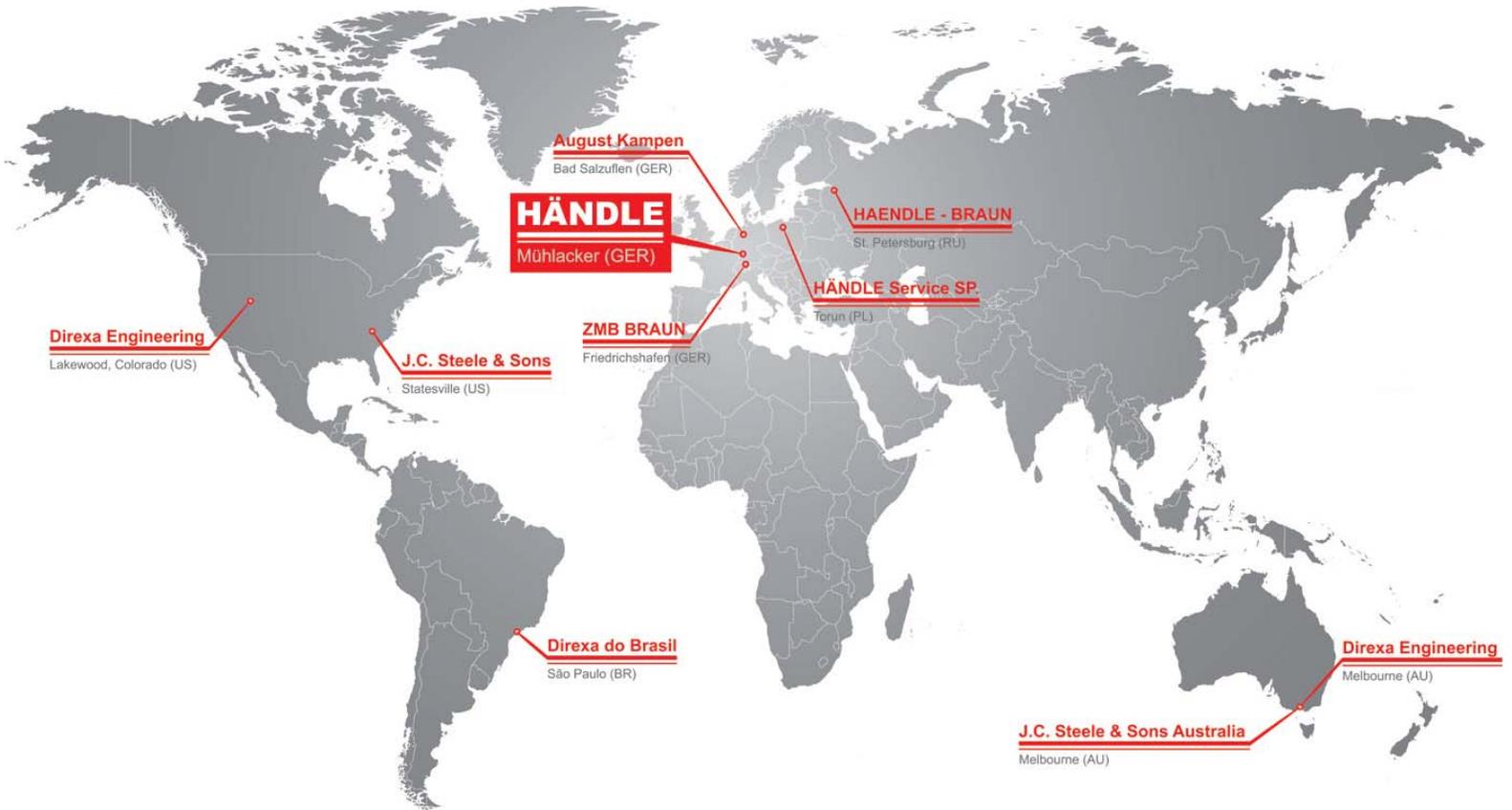
**HÄNDLE**



# **150 years of trust, continuity, reliability, service and customer orientation.**

HÄNDLE is one of the most innovative companies in the world for the entire spectrum of preparation and shaping for the heavy clay industry and technology-related sectors.

In more than 100 countries around the globe, high-quality bricks, paving stones, clinkers, roof tiles, facade panels and much more are being produced on plant and machinery engineered and built by HÄNDLE.



## Strong partners

HÄNDLE is part of an international group of companies, with locations in the USA, Australia, Germany, Poland and Russia, with worldwide sales representation.



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Statesville (USA)

STEELE is the global market leader for stiff extrusion and dry processing for the heavy clay industry.



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Friedrichshafen (Germany)

ZMB BRAUN is the global market leader for dies with a wide range of products and solutions for the ceramic industry.



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Bad Salzuflen (Germany)

AUGUST KAMPEN manufactures dies for facing bricks, common bricks, special formats, roofing tiles and carries out individual repairs on individual parts.



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Lakewood (USA)

DIREXA is a specialist in the field of drying and firing solutions for the ceramic industry.

**Our company is able  
to look back on  
150 years of history**



**As a company of long standing, HÄNDLE is one of the technological and market leaders in its sector and a reliable partner to the brick and tile industry.**

” We work together to maintain a consistently high level of service,  
delivering innovative solutions to our customers every day. “

*Managing Director Gerhard Fischer*

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Companies in the heavy clay industry have relied on the excellence of HÄNDLE machinery, equipment and service since 1870. Shaping has always been our core

competency. With around 6,000 extruders “Made in Mühlacker” and delivered all over the world, it’s no surprise that we’re a leader in extrusion technology.

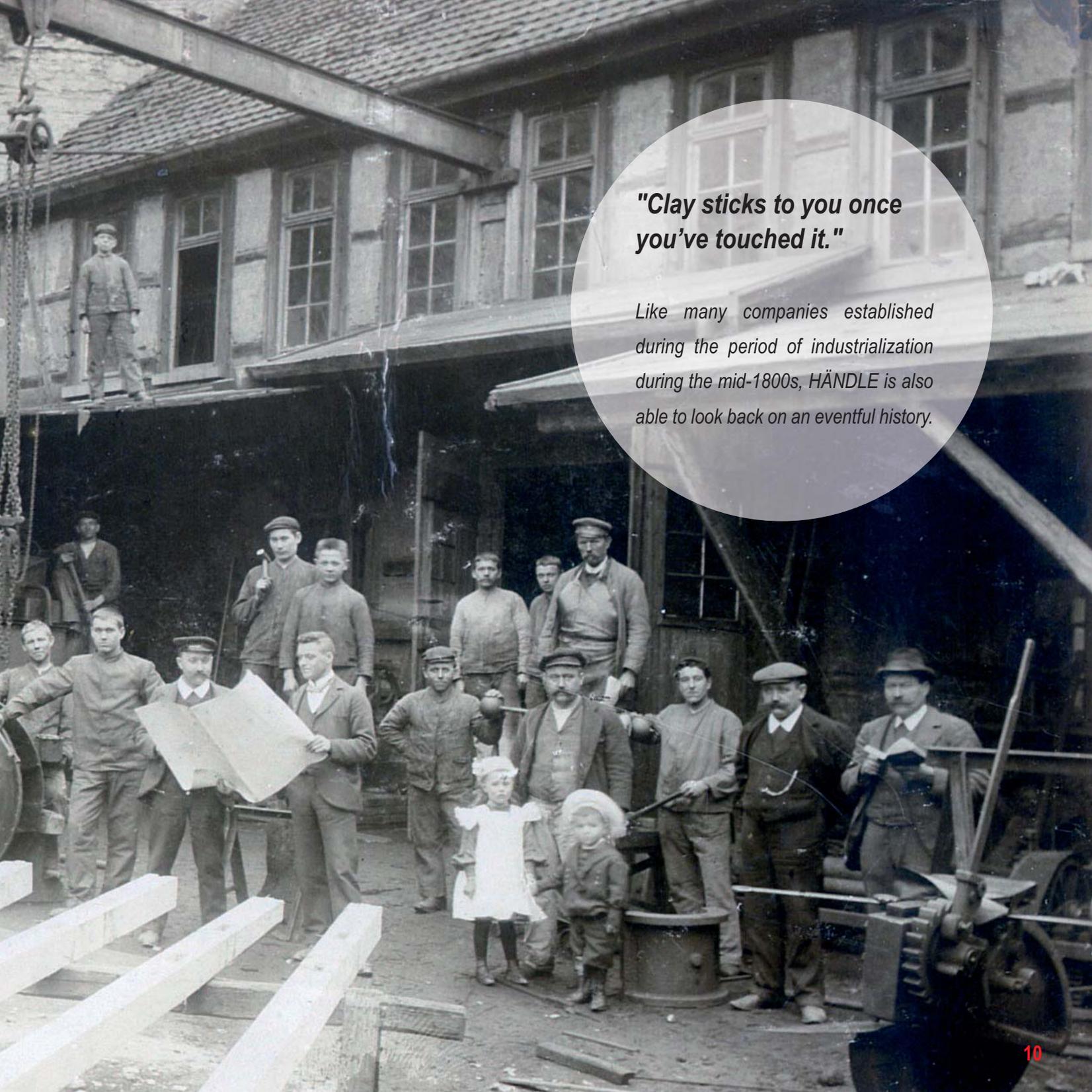
The age of HÄNDLE began with a fitter's and blacksmith's shop that a young master fitter – Karl Händle – set up in a rented space in Dürrmenz. But, soon after, Karl Händle was called up to serve in the Franco-Prussian War of 1870 / 71 and so the young business was all too quickly forced to shut down again. After he returned from the war, however, the fitter's workshop soon developed into a small machine factory with an astonishingly varied production. First experiences with brick-making machines were gained through repair work before the first brick press was finally built in 1890.

## History - from fitter's shop to factory

The population had started to steadily increase at this time. As a consequence, urban developments were huge and resulted in a strong growth in the construction sector and therefore also in the brick industry. Many small brickworks developed into medium-sized and large enterprises and converted from manual to machine production. It was in this way that the foundations were established for the emergence of the brick-making-machine industry, which also enabled the Karl Händle company to focus increasingly on brick-making machines from around 1890 onward. Karl Händle's sons joined the company over time and it was this second generation that significantly influenced the business' development from a trade

firm into an industrial enterprise. Its many engineering solutions quickly helped HÄNDLE establish a reputation for itself in its field. The industry in Germany for brick-making machinery also owes part of its rise to ring kilns, which started to conquer the markets in 1870. The construction managers who built ring kilns all over the world were mostly from Germany and as a consequence also recommended brick-making machines from the country and thus helped popularize them internationally. HÄNDLE was already delivering across most of Europe – including Russia and the Middle East – even before the outbreak of the

First World War. The company's business has always been highly export oriented. The further development of vacuum presses into combined de-airing extrusion units in 1936 earned the company recognition across the globe and transformed it into one of the leading manufacturers of plants and machinery for ceramic products. The Second World War put a temporary halt to the company's growth and it was forced to switch to contribute to the war effort and, as a consequence, was only permitted to supply spare parts to customers. But production was successfully restarted in the autumn of 1945. The company's global lead continued to grow as a result of the many new developments it realized.



***"Clay sticks to you once  
you've touched it."***

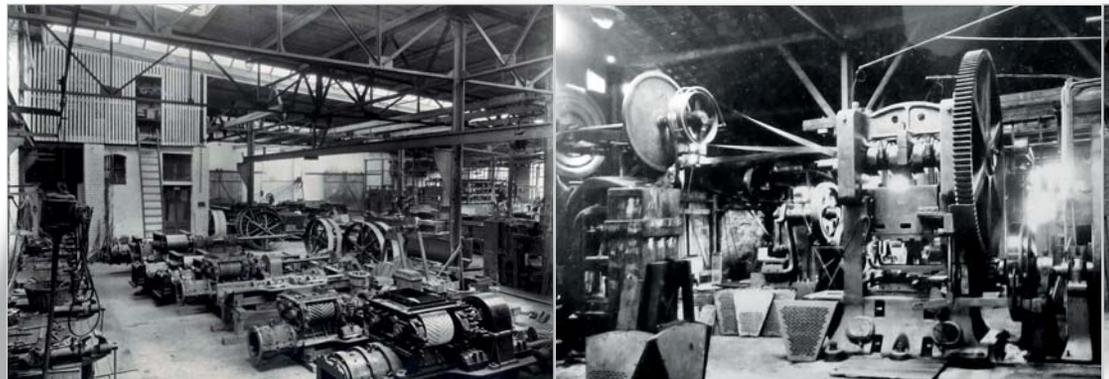
*Like many companies established during the period of industrialization during the mid-1800s, HÄNDLE is also able to look back on an eventful history.*

# The most important inventions, designs...

- 1890** First brick press with a diameter of 250 mm designed
- 1906** Huge success: Box feeder invented
- 1907** HD wet pan mill built
- 1908** First smooth roller mill with gear drive built
- 1909** Two-story wet pan mills built
- First turntable roofing-tile press delivered
- 1910** Ridge-tile carriage-type presses built
- 1910** First fine roller mill for gap widths down to 0.75 mm is built
- 1912** Fine roller mill with differential speeds introduced
- 1920** Interlocking tile press developed as a crank press
- 1922** Single-shaft mixer developed
- 1929** Double-shaft mixer introduced
- 1930** Sourcing plant with cross-dredging excavator
- 1933** First large-capacity box feeder built
- 1934** First vacuum press built



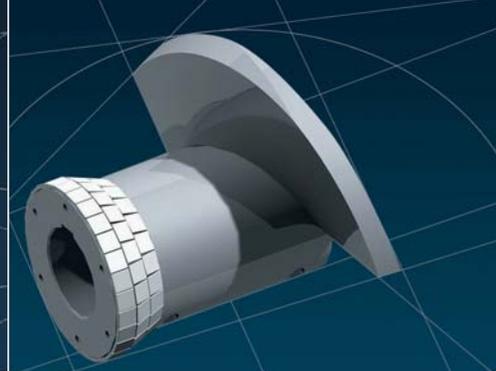
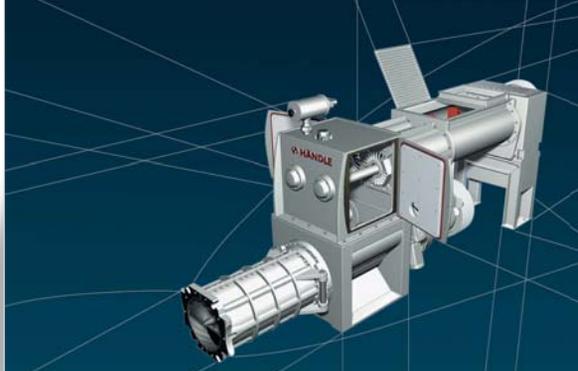
*... from Mühlacker  
into the wide world*



# ... and market launches from 1890 - 2020

- 1936** Combined de-airing extrusion unit developed: combination of extruder & double-shaft mixer
- 1940** Factory standard developed and box-feeder series production commenced
- 1951** Ridge tile press with turntable
- 1953** Laboratory combined de-airing extrusion unit type PZVM 8a
- 1956** Discharging mechanism for small soring plants: the rotary tiller
- 1957** Roller mills type WF with closed roller frame made of hollow cast
- 1959** Clay silo with rotating discharge auger and hydraulic feed
- 1960** Pre-expanders for polystyrene built for the production of Poroton
- 1965** First combined de-airing extrusion unit for stiff extrusion built
- 1972** Longitudinal silo with two discharge augers
- 1974** Double-shaft screen kneader as an alternative to wet pan mills for dry raw materials
- 1976** The 'Compacta' developed as a new generation of compact combined de-airing extrusion units
- 1977** 'Universa' combined de-airing extrusion unit
- 1978** World's largest wet pan mill in the ceramics industry built: Type HM2080a
- 1982** Hydraulic roller crusher for volumetric throughputs up to 250 m<sup>3</sup>/h





- 1983** WSB stone eliminating roller crusher
- 1990** **FUTURA I – next generation combined de-airing extrusion units**
- 1991** Alpha I - hinge type fine roller mill - next generation roller mills for fine grinding
- 1995** ‘Quadro’ wet pan mill with four runners
- 1996** **Turntable press WEGA**
- 1997** Newly developed double-shaft screen mixer
- 1999** PZGD 45b double-auger extruder
- 2000** **The new ‘FUTURA II’ design replaces the ‘FUTURA I’**
- 2001** **New ALPHA II hydraulic hinge-type fine roller mill for gap widths of down to 0.5 mm**
- 2001** MMS mobile measuring system for optimum extrusion
- 2003** **NOVA II revolving press allows large roof tiles with 5 tiles/m<sup>3</sup> to be pressed for the first time**
- 2004** 750 Super Extruder E75 for multi-column extrusion
- 2007** WEGA PDZ2S 5065a, single turntable press
- 2009** **Further development of HÄNDLE’s system-oriented wearing technology**
- 2010** EKBL45a+60a and EKBQ150a longitudinal- and cross-dredging excavators

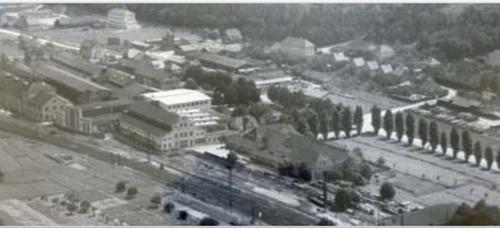


- 2011**    New double-shaft screen mixer program  
**New E25 extruder model with 200 and 250 mm barrel diameter**  
Many innovations related to hard-facing materials, including the use of ceramics and carbide
- 2012**    **Wega-S3 turntable press**  
ER25A/20 stainless steel extruder for pipe production in China
- 2013**    E40B extruder for extrusion pressures up to 150 bar
- 2014**    Optimization of the ESM extruder simulation model
- 2015**    **Further development of the WSL disintegrators in cooperation with Steele**
- 2016**    FME12A moisture measuring extruder
- 2017**    **New NOVA III 2.400 roof tile press with eccentric cam launched**  
Combinded de-airing extrusion unit with MH40B vertical primary pug mill and E40b/35S extruder
- 2018**    GAMMA fine roller mill for comminution down to a minimum roller gap of 1 mm
- 2019**    **EF extruder series for applications beyond the brick industry**

# Highlights from the company's 150-year history

**1870** Company officially established by Karl Händle in Dürrmenz on June 26, 1870

**1876** Training for apprentices commenced



**1905** Relocation from Dürrmenz to Mühlacker

*(With great foresight, the new property, which was located directly next to a railway line, was chosen for its size to allow for the accommodation of future expansions over the long term.)*

**1920** 50 years of Maschinenfabrik Karl Händle & Söhne

**1922** Foundry built and officially opened

*(The last casting took place in 1985. The foundry was then closed and converted into a central store for spare parts.)*

**1936** Training workshop opened

*(The first half of the assembly hall built but not completed until 1955.)*

**1947** Testing plant and laboratory built

**1958** Relocation to newly built administration building

**1966** Machinery makes up 50% of exports

**1970** 100-year anniversary

**1973** HÄNDLE Australia established in Kurri Kurri

*(This branch was in operation until 1992.)*

**1975** Ceramatec established in Sao Paulo (Brazil)

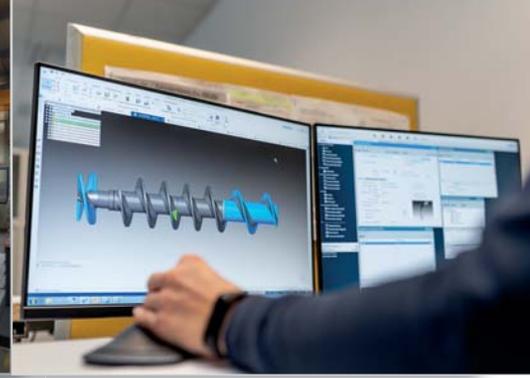
*(This investment ended at the end of the 1980s.)*

**1978** 'Green' production hall built



- 1978** Electronic data-processing system installed
- 1992** Majority share in Fr. Petersen Maskinfabrik in Broager (Denmark) acquired by HÄNDLE (Company legally separated from Fr. Petersen Maskinfabrik in 2009. Petersen continues to support HÄNDLE's interests on the Danish market as a sales representative.)
- 1993** 'Blue' assembly hall for large machines built
- 2000** J.C. Steele & Sons in Statesville, NC (USA) becomes majority shareholder
- 2003** Foundation of the service company Händle S.p.z.o.o in Torun (Poland)
- 2008** Conversion of the IT system to an operationally fully integrated ERP system.
- 2009** Extensive investment program for in-house production at the Mühlacker location launched
- 2010** 10-year anniversary of the partnership with J.C. Steele & Sons (USA)
- Subsidiary in St. Petersburg (Russia) established

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**2011** Business expansion through new sales department for process-engineering processes beyond the brick and tile industry

**2013** HÄNDLE Service Akademie established

**2014** Ziegelmundstückbau Braun GmbH in Friedrichshafen and August Kampen GmbH in Bad Salzuflen acquired

New HÄNDLE logistics center built and opened at the Mühlacker location

**2015** HÄNDLE, BRAUN, KAMPEN service base in Northern Germany expanded  
Jointly installed "Extrusion Technology - Shaping" team of experts

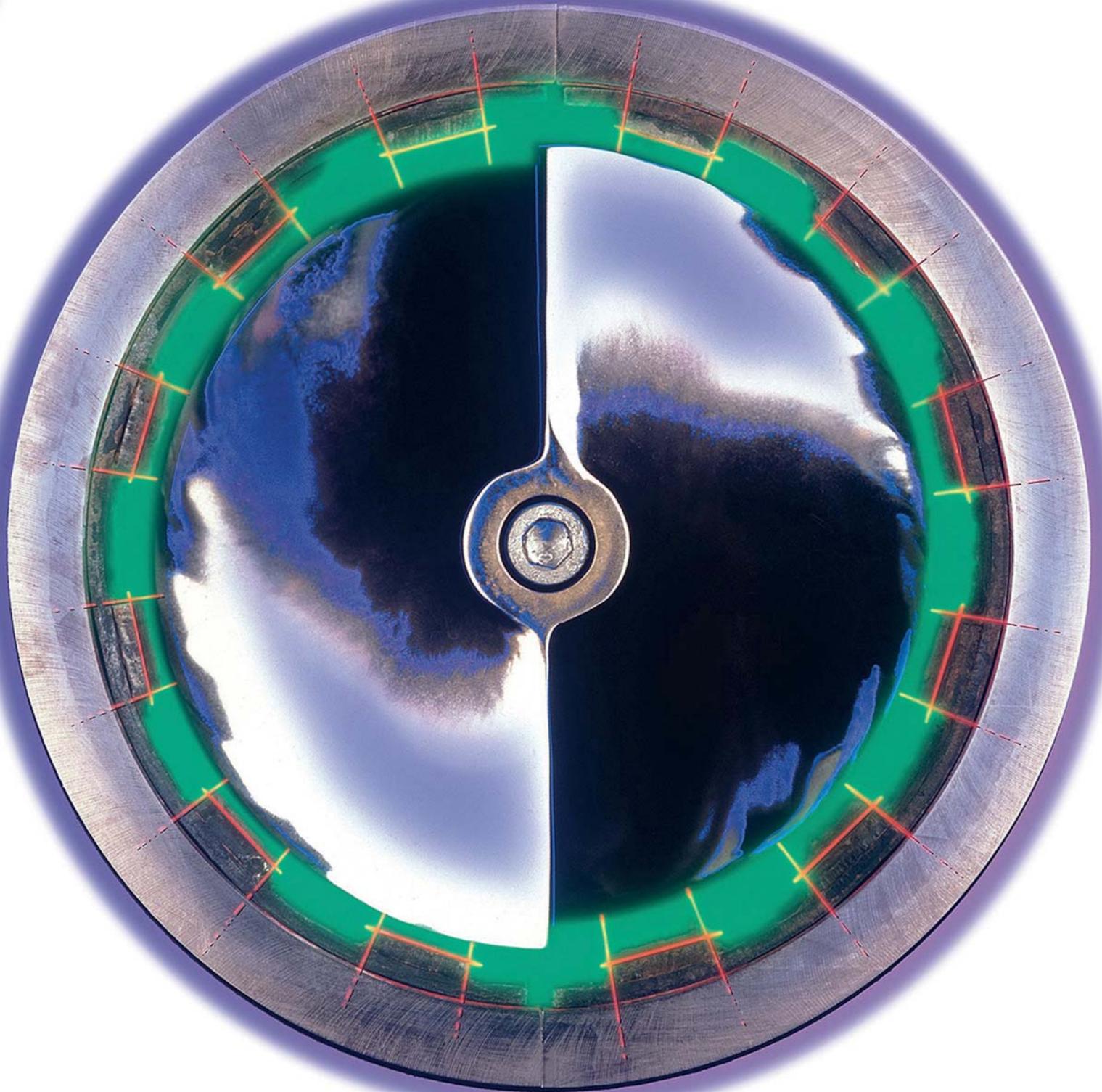
**2018** HÄNDLE takes 2<sup>nd</sup> place in the 'Zi Best Service Supplier 2018 Award'

**2020** 150-year anniversary

***"From trades business to  
global player"***

*Our history motivates us for our future.*

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*Welcome to the medium-sized enterprises, welcome to the family.*

HÄNDLE is a technological leader and consequently relies on employees who inspire with know-how and fresh ideas. Every single employee is an important member of the 'family'. Managing Director Gerhard Fischer: "It's only possible for a true team spirit to develop if we always treat each other with respect and appreciation. That's why it is the individual that counts for us – with his or her strengths and potential for development. "We appreciate the dialogue between generations and the resulting change of perspective is an enrichment for us."

contribution of new ideas and suggestions. And that's why it's only natural that we are happy to commit ourselves to investing in the qualification and further training of our employees. We have a tradition of providing good training: Whether it's further training, part-time university courses or higher qualifications for skilled workers and technician training – we support employees in their professional careers to the best of our abilities. HÄNDLE's products are to be found across the globe, which means that it's also quite possible for employees to work at locations

## „It is the individual with his or her strengths that counts for us“

The most valuable resource is the trust that our employees and customers place in us. We have thrived down the generations as a company that operates with an eye to the long term. Continuity and experience ensure that this trust is sustained every day. The fact that employees remain with the company for many years and that fluctuation rates are low proves that this constancy also delivers internal benefits. Coming up with innovations and improvements to existing products is a core skill that has developed at HÄNDLE down the generations. Employees play a part in the company through the

other than Mühlacker – depending on their position and willingness to travel. The global group of companies and the international character of its customer base present a wide range of opportunities for staff to travel the world and familiarize themselves more with the industry. The flat hierarchies and short coordination channels at the company mean that HÄNDLE is a place where lively and constructive discussions take place and where matters are given careful consideration, decisions are made and actions implemented. It's therefore not surprising that a company such as ours is often described as an engine for growth.

# From Mühlacker into the whole world



*London's 10-story extension to the Tate Modern with its pyramid-shaped side sections already catches the eyes from a distance. Swiss architects realized the futuristic project with an investment volume to the tune of € 328 million. The use of bricks meant that it was possible to place the building's exterior within its historical-industrial context. The clinker bricks used to complete the impressive facade were manufactured in Germany by one of HÄNDLE's long-standing customers.*

Housing is a basic need and modern structures must satisfy the demands that are made on the biology and ecology of buildings. Exterior walls and roofs assume vital functions in this regard as they, among other things, are responsible for determining the interior climate and thus well-being. Bricks have always been one of the most natural building materials around and they perform very well from a holistic point of view.

The basic components remain the same to this day: clay, loam and water are mixed, pressed into molds and fired. The raw materials are extracted from open-cast mines; clay and loam are mainly sourced from deposits in the immediate vicinity of the brickworks.

The manufacturing principle has not changed much over thousands of years – but the technical equipment used to make the bricks has. Firing previously consumed large amounts of energy but many processes within brickworks are today highly optimized. The linking of the energy systems between drying chambers and the immediately following kilns, for example, has resulted in significant reductions in the consumption of primary energy. HÄNDLE has now been making decisive contributions to the ongoing optimization of production processes for more than 150 years. This is possible across the globe thanks to its great innovative power in the field of production engineering.

*Bricks for pioneering architectural projects –  
and as a natural basis for contemporary and healthy living*



The unique value-adding benefits that HÄNDLE offers its customers are the result of:



- ☎ ...a practice-oriented applications laboratory cum pilot plant for semi-industrial trials that has been an integral component of HÄNDLE's project-assistance and sundry services for over 70 years
- ☎ ...a qualified design and development department that is responsible not only for designing new machines, but also for optimizing processes, minimizing wear, reducing energy consumption etc.
- ☎ ...a customer-oriented project management philosophy characterized by fast, accurate attention to the customer's specific needs all the way from the initial consultations and on-the-ground problem solving to the actual commissioning of machines and systems – plus after-sales service, of course – for the life of the machine
- ☎ ...a global service response and personal on-the-ground customer support for guaranteed fast delivery of spare and wear parts, regeneration service, preventive maintenance and overhauling of used machines
- ☎ ...a fast and flexible in-house parts production unit
- ☎ ...a reliable adherence to planning, manufacturing and installation schedules



150 Years

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