

We change the world, not from the outside but from within.



COMPANY PRESENTATION

# An enquiring spirit comes from within. Curiosity takes us further.

That feeling of burning curiosity is incomparable. It releases boundless energy to get to the bottom of things.

Diehl Metall's spirit of enquiry was awoken more than 100 years ago and still strives to harness the forces of nature. Cunning use of fire and water, a deep understanding of the melting process and technological expertise in the field of non-ferrous metals are necessary for the things we do.

We develop alloys for today's applications and thus shape the technologies of tomorrow. Diehl Metall products make a significant contribution to our daily lives and to the expansion of infrastructure.

They can be found hidden, behind virtually every door.

### CONTENTS

Spirit of Enquiry	2
Technologies	4
Plumbing & Heating	6
Automotive Development	8
Automotive Applications	10
Consumer Electronics	12
Outlook	14
Portfolio	16
Well connected all over the world	18



Fascinating ideas come from within.

Technologies for success by Diehl Metall.









Water meter housing



Wire



Strip





Synchronizer rings in brass and steel



Coated profiled strip

Stamped foils

Overmoulding and Assembling

LED-Housing with overmoulded stamped parts with press-fit zone

We are all around you – especially where you least expect it. Diehl Metall products function not in plain view. They are a part of daily life.

They ensure dynamic mobility, make life more convenient and communication easier, providing a good feeling and a sense of security.

Customers all over the world rely on our expertise as a partner for development and sophisticated design solutions. Shaping the future and enjoying success together – and we can rely on more than 100 years of experience in achieving it.

#### PLUMBING & HEATING

Health and well-being come from within.

Sustainable product developments by Diehl Metall.

Drinking water is essential to our survival. Consumers want to feel sure that the water flowing out of the tap is free from harmful substances.

One of the most important aspects of drinking water pipings and fixtures is the selection of suitable materials.

Diehl Metall material solutions are ideally suited to the plumbing and heating industry, as they meet high standards of safety, corrosion resistance, hygiene and mechanical properties. Ecology and economy are closely connected: our alloys conserve scarce resources, do not wear out, can easily be recycled and have a convincing, sustainably good carbon footprint.



Semi-finished products in brass and special brass alloys: Rods, hollow rods, tubes and profiles







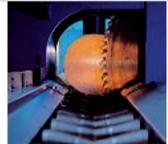




Drive comes from within. Choose the perfect partner for dynamic mobility. Us.







Cutting the bars / block saw





A perfect partnership is always based on confidence. The development and production of highperformance alloys and tool construction in house provide the best conditions for the tailored design of modern engine and transmission technologies. We can hardly wait to get new projects on the road with you - in a process of trustful interchange, and all the while keeping our eye on the desired aim: smaller assemblies with higher power and lower consumption, or light weight construction. To achieve this, Diehl Metall as an international production alliance focuses on the principle of miniaturization and visible increases in the efficiency of existing technologies with innovative products. As our customer, you can be sure of receiving the required product in the desired quality anywhere in the world.





Forging process of brass synchronizer rings

 $Production \ of \ steel \ synchronizer \ rings$ 

Coating

Gearbox test bench

Our synchronizer ring: the keystone of the mechanical transmission.

Diehl Metall Schmiedetechnik is the global market leader for brass synchronizer rings.

More than 1 billion have been delivered all over the world since 1956.

Diehl Metall thinks of itself as your development partner and full-range supplier to the international automotive industry. Ask the specialists. Us.

Diehl hybrid multi-cone set: patented Diehl Metall solution for optimum heat regulation

The drive comes from within. Diehl Metall know-how for the mobility of tomorrow.





Swash plates



Signal-conducting harness wire



press-fit zone

The high ecological and economic potential of a closed material cycle is our strongest motivation for sustainable, customer-oriented thought and action.

The trends of the future have been identified. Diehl Metall keeps all its material development and production, as well as plating, stamping, sheet metal shaping and forging technology operations in-house. From the start, we place great value on easily recyclable alloys and composite materials. Development services throughout the complete supply chain – in which our innovative overmoulding and assembling technology plays an important role - help future technologies such as fuel cell, hybrid and electric propulsion on their way to success.



Stamped parts punched with progressive tool

Manufacturing of components

Connectors

Cell connecting system

Stamped grids

Our special alloys for automotive applications: inquire about our material concept.















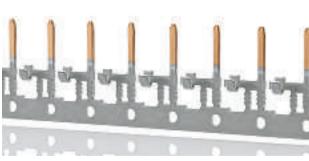
Joie de vivre
comes from within.
Solutions by
Diehl Metall
which improve
everyday life.





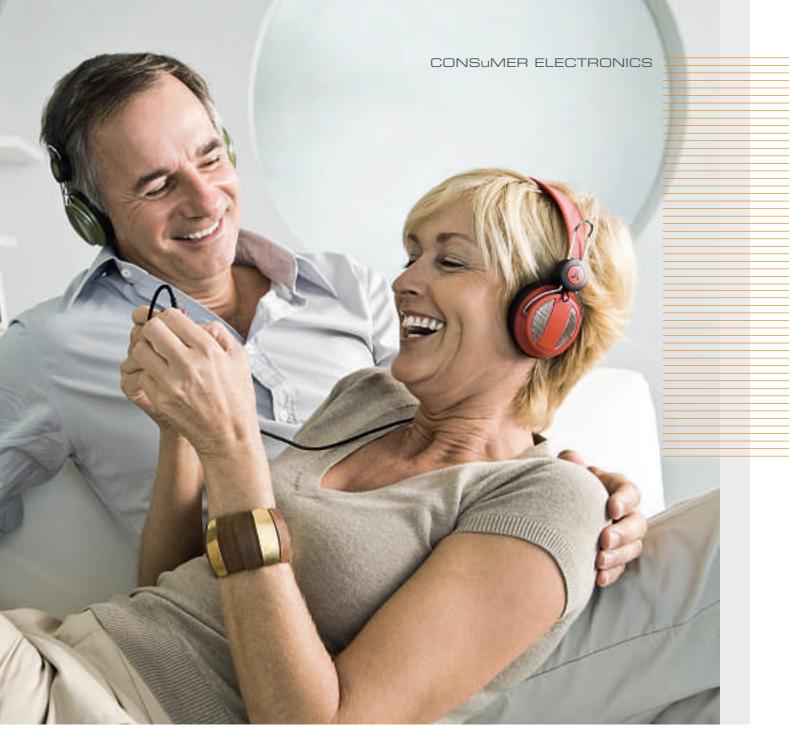
High precision stamped parts with surface treatment





2D and 3D Reel-to-Reel Plating

High-speed precision stamping Selective plating with nickel phosphorus



Innovative materials for electronic applications

There is no permanent reality except the reality of change, as the Greek philosopher Heraclitus said. This is particularly true of products in the consumer electronics industry. Diehl Metall considers itself as an internationally active partner of the stamping industry and electronic component manufacturers in the field of surface treatment and stamping technology. Our integrated supply chain makes us extremely flexible to answer the demands of our customers in terms of material and process requirements. To us, sustainability means innovative handling of materials and energy. We therefore place the greatest value on recyclable design for materials and surfaces.

Good to know: at Diehl Metall you can expect consistency. From the start, we combine your experience with our expertise as a developer and manufacturer. Together we will lead your product to success.













Margarete and Heinrich Diehl The company founders, 1902

From the small art foundry which Mr and Mrs Diehl built up together in just a few years into a leading Bavarian industrial semi-finished product business, their son Karl Diehl created an internationally leading technology corporation.

Recognizing the signs of the times, the company began to diversify just a few years after having been founded. Following this tradition, Diehl Metall puts its faith in diversity and uses the synergies of the five corporate divisions of the Diehl Group strategically. With over 14 500 employees worldwide, we are in the best position to support customers and partners as an experienced solution provider – with curiosity and a spirit of enquiry.



Factory 1 at Nuremberg North East station, 1917

The early phase of the company: a worker in the foundry

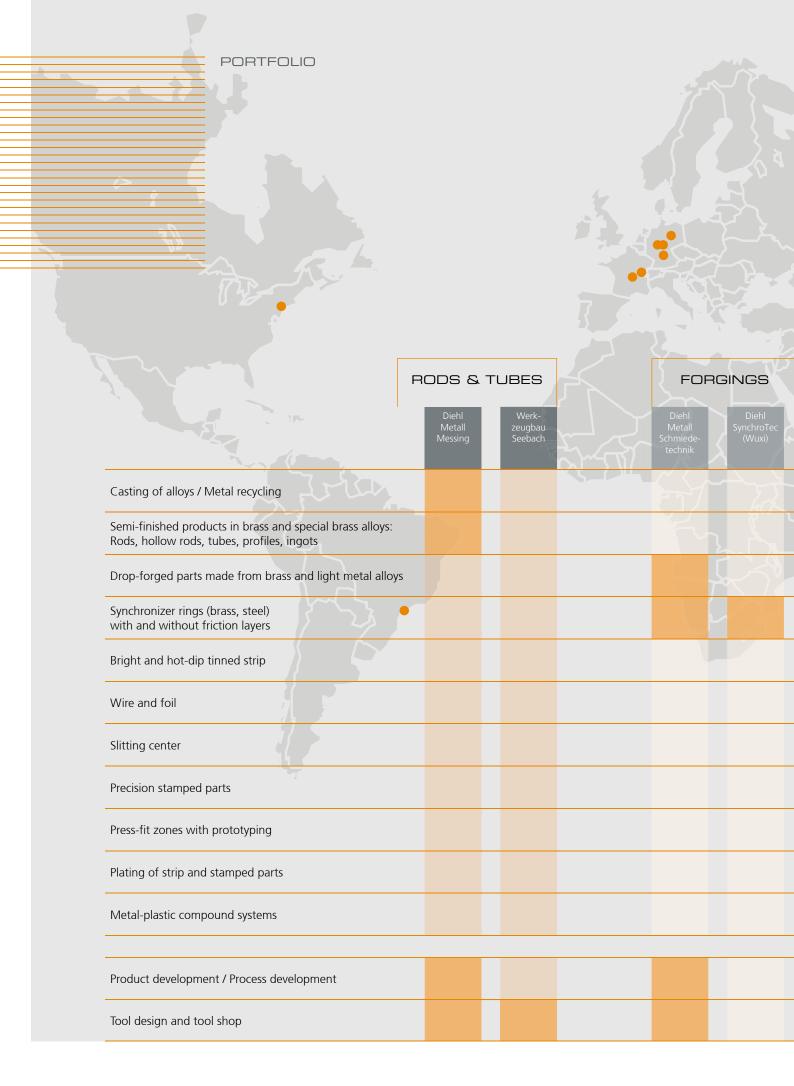
A view of semi-finished product production in the 1950s

In 2007, on the occasion of his 100th birthday, Karl Diehl donated funds to restore the courtyard of the Nuremberg Pellerhaus, a pearl of the Renaissance.

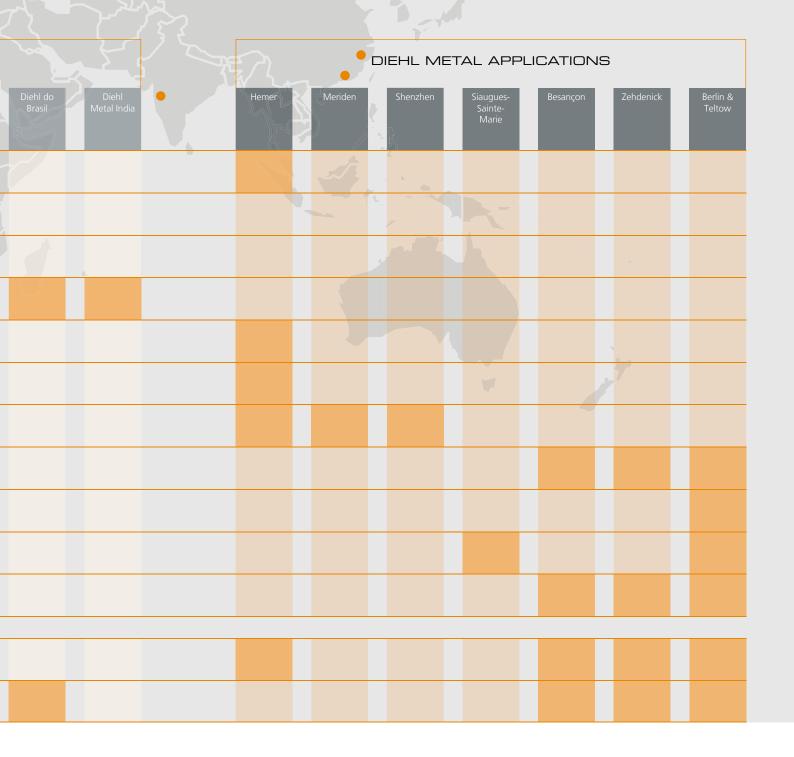
From an art foundry to a technology corporation.

Over 100 years after its foundation, Diehl Metall, with its headquarters in Roethenbach near Nuremberg, is now represented at 13 sites with over 3 000 employees.

The company has remained a family owned business since its establishment in 1902.



# Expertise comes from within. Your Diehl Metall specialists from all over the world.





Visions come from within.

You can find your development partner here.

### **DIEHL**Metall

Diehl Metall Stiftung & Co. KG Heinrich-Diehl-Straße 9 90552 Röthenbach a.d. Pegnitz, Germany

Phone +49 911 5704-0 Fax +49 911 5704-435 E-Mail: sales-metall@diehl.com

Diehl Augé Découpage SAS 12 Bd J.F. Kennedy 25000 Besançon, France Phone +33 3 814022-00 Fax +33 3 814022-19 E-Mail: sales-besancon@diehl.com

Diehl do Brasil Metalúrgica Limitada Rua Lagrange, 171 Vila Socorro 04761-050 São Paulo-SP, Brasil Phone +55 11 216401-02 Fax +55 11 552162-15 E-Mail: sales-brasil@diehl.com

Diehl Metal Applications GmbH Am Stichkanal 6-8 14167 Berlin, Germany Phone +49 30 84784-438 Fax +49 30 84784-439 E-Mail: sales-berlin@diehl.com

Diehl Metal Applications GmbH Ruhlsdorfer Straße 100 14513 Teltow, Germany Phone +49 30 84784-438 Fax +49 30 84784-439 E-Mail: sales-berlin@diehl.com

Diehl Metal India Pvt. Ltd. S.No. 225, Hissa Nr. 1/8 Hinjewadi, Taluka-Mulshi Pune 411057, India Phone +91 20 66742-600 Fax +91 20 66742-602 E-Mail: sales-india@diehl.com Diehl Metall Messing Heinrich-Diehl-Straße 9 90552 Röthenbach a.d. Pegnitz, Germany Phone +49 911 5704-0 Fax +49 911 5704-435 E-Mail: sales-messing@diehl.com www.cuphin.com

Diehl Metall (Shenzhen) Co. Ltd. Block 25, Shatoujiao Free Trade Zone 518081 Shenzhen, P.R. of China Phone +86 755 25261454-0 Fax +86 755 25260974 E-Mail: sales-shenzhen@diehl.com

Diehl Metall Schmiedetechnik Heinrich-Diehl-Straße 9 90552 Röthenbach a.d. Pegnitz, Germany Phone +49 911 5704-0 Fax +49 911 5704-435 E-Mail: sales-schmiede@diehl.com

DIEHL POWER ELECTRONIC SAS Siaugues St. Romain 43300 Siaugues Sainte-Marie, France Phone +33 4 7174-0930 Fax +33 4 7174-2843 E-Mail: sales-siaugues@diehl.com

Diehl SynchroTec Manufacturing (Wuxi) Co., Ltd.
No. 59 Ximei Road
Wuxi Hi-Tech Industrial
Development Zone
214112 Wuxi, Jiangsu, P.R. of China
Phone +86 510 881564-01
Fax +86 510 881564-03
E-Mail: sales-wuxi@diehl.com

Diehl Werkzeugbau Seebach GmbH Neue Straße 67 99846 Seebach, Germany Phone +49 36929 6402-0 Fax +49 36929 6402-111 E-Mail: werkzeugbau.seebach@diehl.com Franconia Industries, Inc.
145 Center Street
CT 06450 Meriden, USA
Phone +1 203 63952-20
Fax +1 203 23532-69
F-Mail: sales-meriden@diehl.com

SMH Süddeutsche Metallhandelsgesellschaft mit beschränkter Haftung Heinrich-Diehl-Straße 9 90552 Röthenbach a.d. Pegnitz, Germany Phone +49 911 5704-0 Fax +49 911 5704-435 E-Mail: sales-smh@diehl.com

Sundwiger Messingwerk GmbH & Co. KG Hönnetalstraße 110 58675 Hemer, Germany Phone +49 2372 661-0 Fax +49 2372 661-259 E-Mail: sales-sundwig@diehl.com

The Miller Company 275 Pratt Street CT 06450 Meriden, USA Phone +1 203 23544-74 Fax +1 203 63469-26 E-Mail: sales-meriden@diehl.com www.themillerco.com

Zehdenick Innovative Metall- und Kunststofftechnik GmbH Liebenwalder Ausbau 13 16792 Zehdenick, Germany Phone +49 30 84784-438 Fax +49 30 84784-439 E-Mail: sales-berlin@diehl.com

www.diehl.com/metall

Published by: Diehl Metall Stiftung & Co. KG

Strategic Marketing Heinrich-Diehl-Str. 9

90552 Roethenbach a.d. Pegnitz

Germany

Phone +49 911 5704-0 Fax +49 911 5704-435 www.diehl.com/metall