



preci-dip

swiss world connects

**“IT TAKES PROFOUND
KNOWLEDGE
TO DO THINGS IN A
SIMPLE MANNER.”**

Anne Robert Jacques Turgot,
Minister of Finance to the King of France,
1727–1781

**“DETAILS
MAKE PERFECTION,
AND PERFECTION
IS NOT A DETAIL.”**

Leonardo da Vinci,
1452–1519



preci-dip

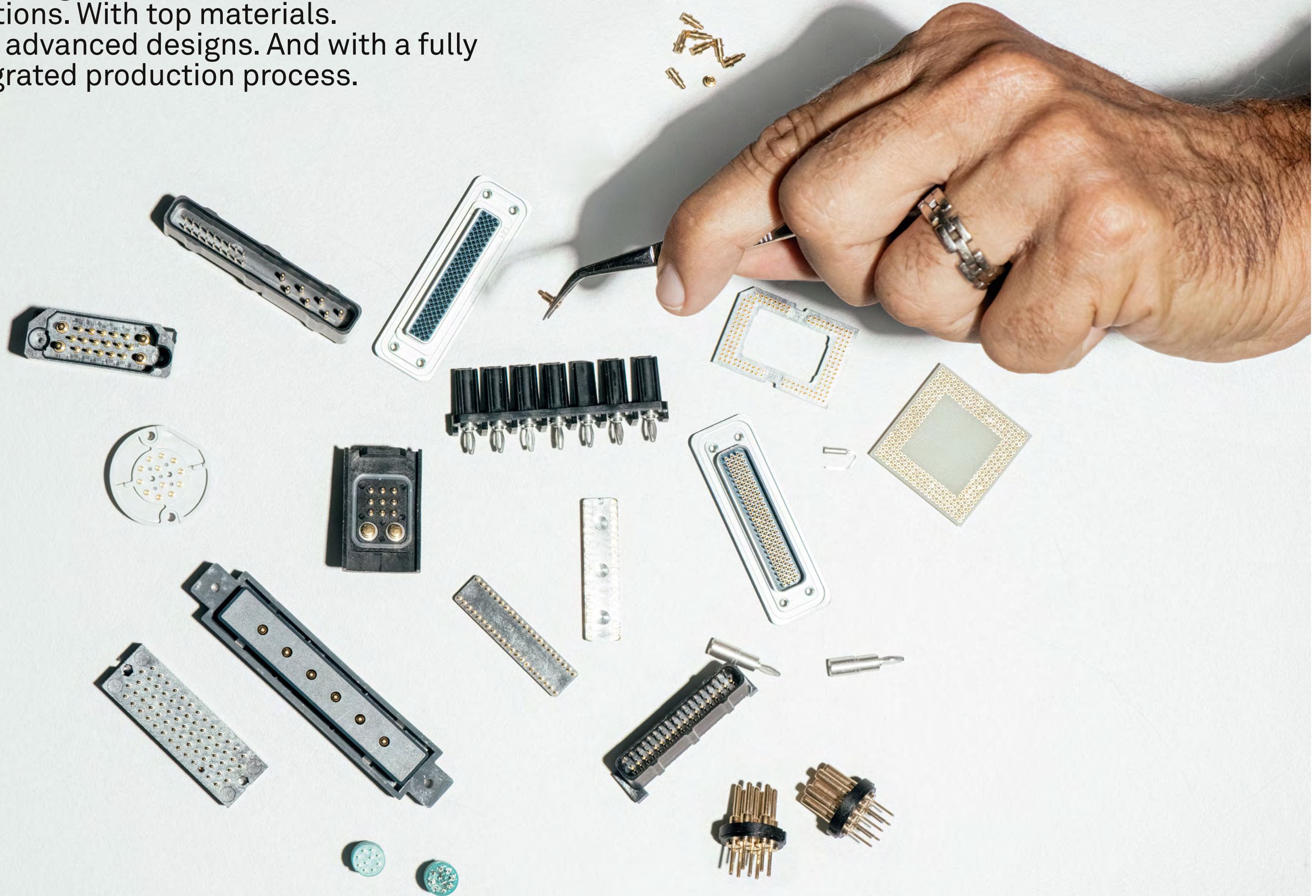
The northwest of Switzerland has a rich tradition in precision technology. At PRECI-DIP we take that to the future. Everything under one roof: expertise and dedication connected to the know-how of developing outstanding Swiss quality.



At PRECI-DIP we build on a unique approach to vertical integration: Mastering all key process steps in-house enables us to provide effective and creative interconnect solutions. Swiss World Connects high-precision interconnect solutions and integrated understanding of customer needs.



Delivering a wide variety of custom-made solutions. With top materials. With advanced designs. And with a fully integrated production process.



**OUR CUSTOM-
DESIGNED
HIGH-PRECISION
SOLUTIONS
INTERCONNECT
WITH EVERY
ASPECT OF
DIGITAL LIFE.**



preci-dip



Making the world dance with spring-loaded contacts custom designed for Jabra earbuds.



Gold-plated, spring-loaded contact used in the charger case for earbuds, ensuring high reliability for multiple charging connections, as well as high resistance to corrosion.



MIL AVIO

Custom designed for defense.
Military radios stay securely tuned-in with
ultra-reliable radio connection contacts.



Heavy-duty, high-performance spring-loaded audio connector, with superior sealing performance. The connector sealing is ensured by individual O-rings on each contact, as well as epoxy potting at the back end of the connector.



Trucking with confidence and control thanks to custom-designed contacts for heavy-duty brake systems.



Precision-bent silver-plated socket contact, integrated into the Anti-lock Brake System (ABS) of heavy-duty trucks. This custom-bent contact allows the transition from a large pitch connector to a much finer pitch on the circuit board of the electronic control module (ECM).



Full flight and fun control with spring-loaded contacts for drone innovations.



Eight-way, 2.5-mm-high/low profile connector, ensuring data capture and transfer from a drone camera to a memory module.



Every drop counts: PRECI-DIP connectors drive many kinds of flowmeters.



Multi-pin board connector driving the flowmeter unit. Each contact within the connector has a multi-contact point clip to ensure reliability and durability of the connection. All these contacts are automatically assembled and controlled within the plastic housing in less than 7 seconds, utilizing specialized robotic equipment developed and built in-house.



Hit the trails confidently with spring-loaded connectors specially crafted for e-bikes.



High-current (20 amp) spring-loaded contact with wire termination. Shock and vibration performance of this contact is a key requirement, achieved by this integrated clip/spring-loaded contact. This design ensures the connection, within the e-bike, of the power train and its electronic controls.



Safe in the sky with PRECI-DIP connectors for electronic flare countermeasure units.



Spring-loaded contact, using proprietary clip technology. Our unique design approach allows the connection interface to withstand the unusually high shock values which occur when triggering flare deployments in defensive countermeasure situations.



Enjoy a safe ride with custom-designed contacts for adaptive cruise control.



Double-bent socket contact, smoothly processed by a customized automated bending system, designed and built in-house. This socket contact is integrated within the heater element part of the cruise/distance control module, located near the front bumper of the car.



Enhancing efficiency with multi-pin connectors for e-car motors.



36-way, surface mount "gull wing" connectors for Electric Vehicles (EVs), assembled in our fully automated production system, ensuring stringent, highly controlled 0.10 mm coplanarity throughout the length of the connector. This connector is integrated within the inverter of the EV's power system.



Safety comes first thanks to precise, reliable connectors for pacemaker applications.



Micro socket shaped with a 0.66 mm square barrel mating with a 0.20 mm pin on the cardiac pacemaker's electronic board. These sockets are assembled and controlled utilizing our proprietary designed/built manufacturing system. Cleanliness of each part is optically controlled, automatically.

tron



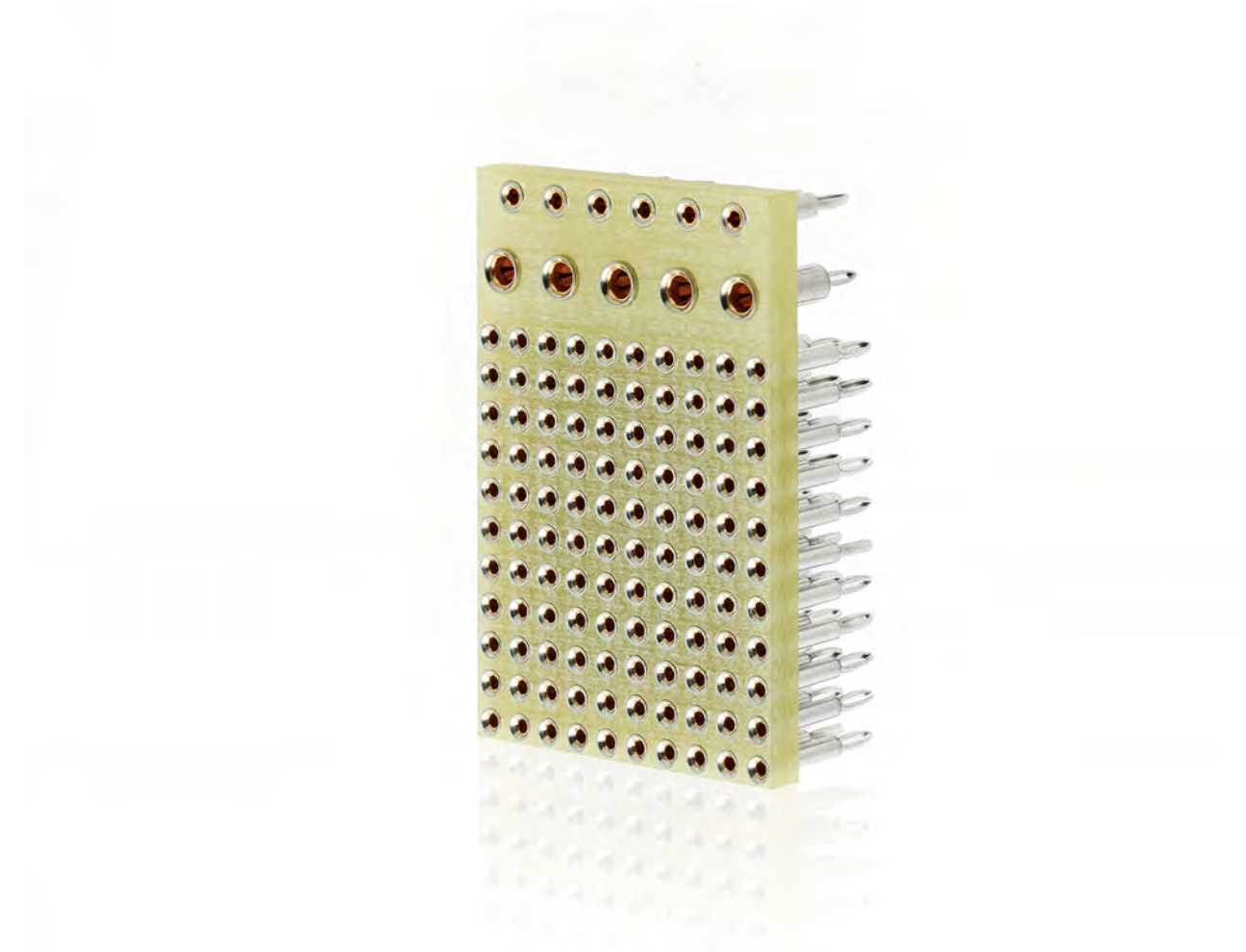
Clear as a bell: Hearing aids deliver outstanding sound quality with the help of PRECI-DIP clip contacts.



Miniature 0.77-mm-diameter gold-plated sockets, with clip, ensuring multi-contact points with counter pin. This socket is surface mounted on the electronic board of the hearing aid, connecting it to the battery.



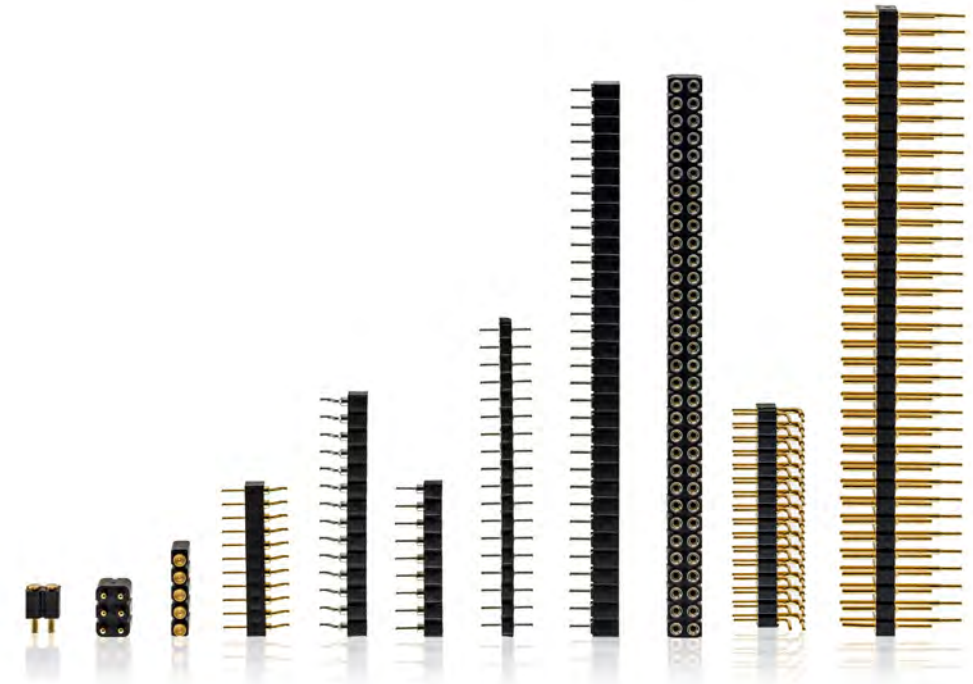
Flying precision with custom-made array sockets for flight control units.



Press-fit multi-pin socket connectors, with mixed signal and power layout. These solderless connectors are integrated within the avionic electronic modules. High reliability and durability are ensured via the multi-contact point clip socket, and reliable elastic press-fit tails.



Ensuring optimal performance day in and day out. Custom-made connector solutions help power industrial automation.



A full range of board-to-board connectors, from one to three rows of contacts, with various board terminations (SMT, tail, press-fit) using various pitch configurations (1 mm, 1,27 mm, 2 mm, 2,54 mm). These connectors are integrated within many industrial applications for power and signal connections.

Custom Design Is Creativity Realized.

Our design teams have vast experience in material sciences, electrical engineering, process engineering, and machine building. We apply this know-how to many diverse applications and industries, utilizing an agile and sustainable approach. We use state-of-the-art tools for FEA, mold-flow analysis, and product performance simulation. These tools provide for rapid and reliable development, problem solving, validation, and, ultimately, premier solution fulfillment.

**PRECI-DIP's
unique
approach
delivers
outstanding
customized
creativity.**

One of the most important aspects here is the integration of product design with process design. Only the unique knowledge that comes from being responsible for what a product does, and how it must be made, can deliver creative,

cost-effective, and durable high-quality solutions, fully integrated.

**Where
excellence
meets
visionary
thinking.**

We listen closely, and provide a unique approach to developing your solutions. To exceed expectations we address the serious challenges and needs of our clients by integrating world-class processes, materials, and designs, to engineer solutions which provide unequalled performance, quality and durability.

**At PRECI-DIP
we deliver
value.**

Our cross-disciplinary teams work seamlessly throughout your project. We are fully integrated: We build our own machines and tools, converting raw materials smoothly and efficiently, and each process step is well defined and executed. This drives cost-optimized solutions on time, every

time. The value we deliver includes more than just precision components and systems. Based on mutual confidence and trust, through our team of global experts, and our collaborative approach, we build and deliver strong relationships.

**PRECI-DIP.
We bring you
the most
innovative
solutions.**

A competitive edge, the ability to innovate, and high productivity are some of the core values that connect customer needs with PRECI-DIP's custom-designed solutions. When it comes to custom design, there's an additional value: teamwork. Only an intelligent and sensible combination of talent and technology allows us to turn any customer idea and imagination into reality. This is a very special challenge and one of PRECI-DIP's main assets. An advantage that sets our custom-designed solutions apart from those of competitors all around the world.

Custom-Designed and Standard Solutions. For Every Need. In Every Market. Worldwide.

PRECI-DIP is a world leading company in the manufacture of highly-reliable contacts and connectors that are used in many different fields of the industry. We pack unequalled expertise into cutting-edge interconnect components. We combine advanced designs, top materials and incomparable Swiss precision engineering with a commitment to high output, flexibility and customer orientation. Customers benefit from our dedication to propose options and develop solutions in the following markets.



Tested and qualified top-performance solutions for high military and aviation standards and requirements.

PRECI-DIP is one of the top providers of high-performance contacts and customized board level

connectors in the *Military/Aerospace* industry. Our value comes from in-house vertical manufacturing developed to address a wide array of requirements, while maintaining rigorous standards, including our patented reverse clip, and Eagle Grip technologies. These interconnect solutions ensure the performance and durability of various MIL/AVIO applications.



Innovative and pioneering solutions for communication applications.

PRECI-DIP offers advanced interconnect solutions in communication applications. Our long history in the manufacture of spring-loaded and press-fit contacts has established our leadership position. The applications are varied, including mobile phones, docking stations, military devices, interconnection systems

for network routers and servers, infra-structure, desktop and laptop computers, trans-mission devices, high-frequency connectors, etc. We have pushed the limits of miniaturization, while increasing performance, with inter-connect solutions that are fully compliant with 5G requirements. The telecom market remains a fast-moving industry and PRECI-DIP, with its fully integrated production structure, custom designed solutions and a dedicated engineering team, is well prepared to face the demands and standards of the market and meet the challenges of tomorrow.



Turnkey and reliable ideas for medical interconnect devices.

PRECI-DIP has developed breakthrough innovations in medical interconnect

technologies, including applications for handheld monitoring devices, hearing aids, personal glucose monitors, defibrillators, X-ray and ultrasound scanners, and many others. We have also developed and produced lead-free contacts, meeting RoHS-3 requirements, using advanced materials. Our production facilities meet stringent cleanliness requirements, fulfilling our commitment to developing and providing the best in medical market solutions.



Cutting-edge technology for the automotive industry.

High-performance and high-quality solutions in a mass production environment coupled with the challenges of optimizing costs are key characteristics of the automotive industry. PRECI-DIP has proven experience in developing and manufacturing custom-designed contacts and connectors for various sectors, including cars, trucks, trains, off-road vehicles, e-bikes, etc. Our technologies can be embedded

in electronics like electronic braking systems, radar/LIDAR, various motors (wipers, high beam, windows, etc.), HVAC air management, and more.



Industry and automation rely on varied and pinpointed connector concepts.

PRECI-DIP is a major provider of standard and customized connectors for this challenging industrial market where harsh environment requirements are commonplace. To meet these challenges, we have developed robust designs and dedicated fully automated assembly lines that ensure long-lasting durability and quality. Applications developed include flowmeters, industrial motors, industrial control modules, robotics, etc. Our solutions are embedded in the domain of industry 4.0. Staying ahead of the advances in automation technologies is one of PRECI-DIP's core competencies. Manufacturers seek to build advanced higher-density packaging

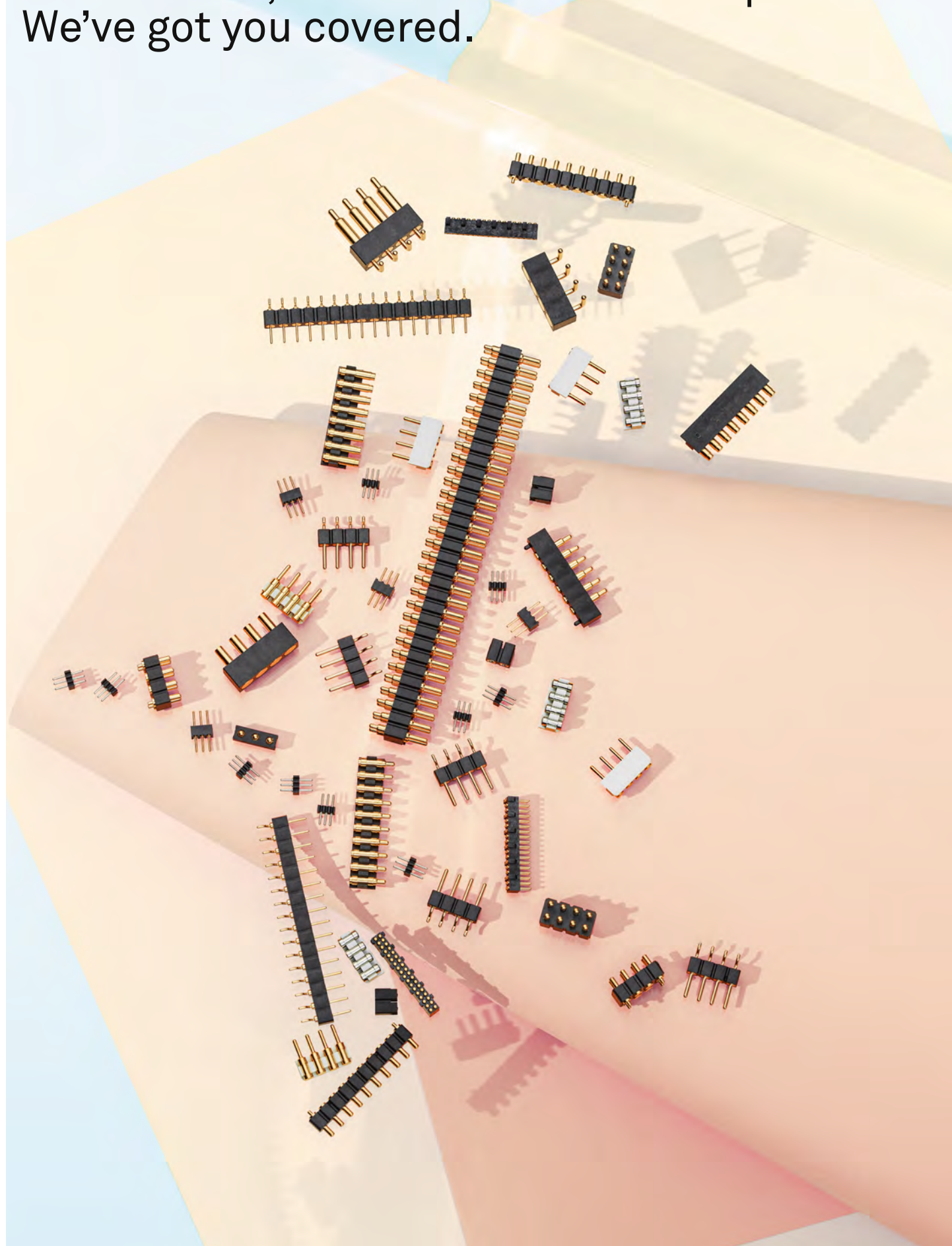
technologies with faster and smaller products. We anticipate these developments to meet the demands of the industry, for instance, by providing our products with low contact resistance and extremely high current density embedded in a reliable design specifically engineered for high mating frequencies.



Our line of advanced connectors developed for the consumer electronics market.

PRECI-DIP is a solutions provider in the demanding consumer electronics market, where flexibility, speed, cost, and miniaturization are key. Our vertically integrated processes, coupled with our worldwide presence (Europe, USA and China) provide an effective means of addressing these challenges. Applications using our products are numerous: camera lenses, ear buds, VR glasses, payment terminals, home automation, tablets, remote controls, drones, and many more.

Simple to complex. From niche to mass production. PRECI-DIP covers any demand, with over 20,000 different standard products. We've got you covered.



***PRECI-DIP
PRODUCES
INTERCONNECT
SOLUTIONS.
FULLY
INTEGRATED.
TOTALLY
COMMITTED.***



preci-dip

The Incomparable Advantage of PRECI-DIP's Vertical Integration.

We design and build our own machines, from manual process equipment through semiautomatic machining and assembly to fully automatic, complex systems. We have more than 35 highly skilled innovators who focus exclusively on these processes and technologies, to create the most effective manufacturing systems possible. These systems are key to the integration of our processes, equipment, and products. It is this integration which drives the top-quality high-precision products we provide to markets and product segments everywhere.

Advantage: client.

Our experience with countless standard products, and more than 20,000 references, underlie the incessant development of new top-quality products designed with cost effectiveness and efficiency in mind. Companies in all industrial sectors value their collaboration with PRECI-DIP for complete

product and component solutions – today and tomorrow. Your PRECI-DIP team welcomes your custom design challenge!

Swiss World Connects industries in every market.

PRECI-DIP has now been present for more than 35 years worldwide and is acknowledged as a leading manufacturer of interconnect components. Our fields of activity are diverse, ranging from mainframe computers to cellular phones as well as aviation, medical and industrial applications.

Fully focused on customer- centered thinking.

Custom-designed products are developed in close partnership with our customers. With our long experience, knowledge, and expertise, we will develop the right product to fit your application and meet your requirements.

Our team is dedicated to study your needs, propose options, and develop solutions for your applications.

With our open-minded, global approach, we blend a rich tradition in precision technology with an intense passion.

**WE ARE
PROUD TO SAY
THAT YOU
PROBABLY
CONNECT WITH
PRECI-DIP
EVERYDAY.
WE ARE THERE
BUT YOU DON'T
SEE US !**



preci-dip

65 million parts a week. All designed for specific customer needs. Produced in a fully vertically integrated production facility in Delémont, Switzerland. Here's how it works.

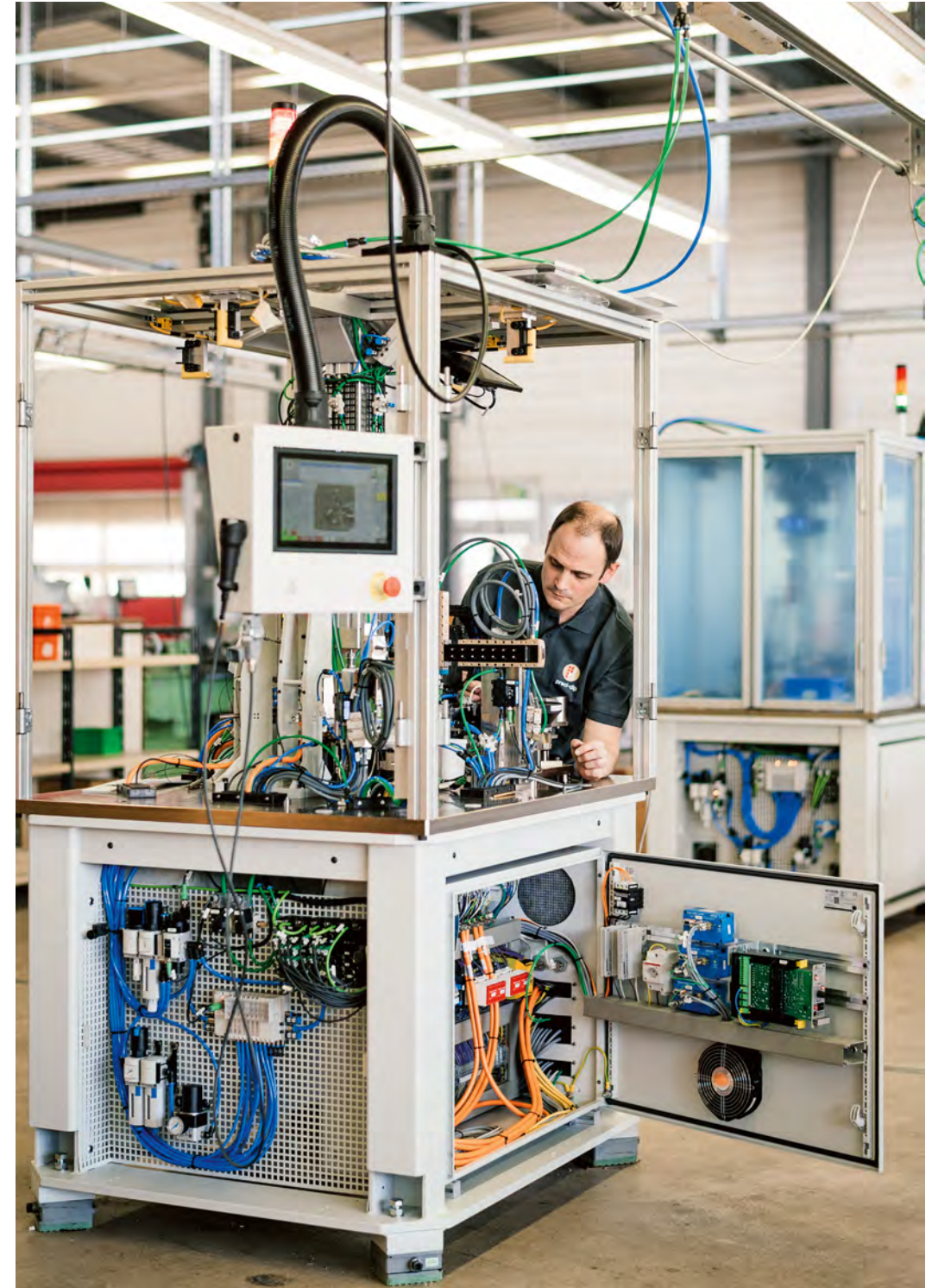


We design interconnect solutions all the way. Our engineering and development teams utilize state-of-the-art design tools and equipment to deliver innovative solutions.



Our machines are built in-house.
And we manufacture all our own molds
and tools within specialized facilities
to complete the production process.

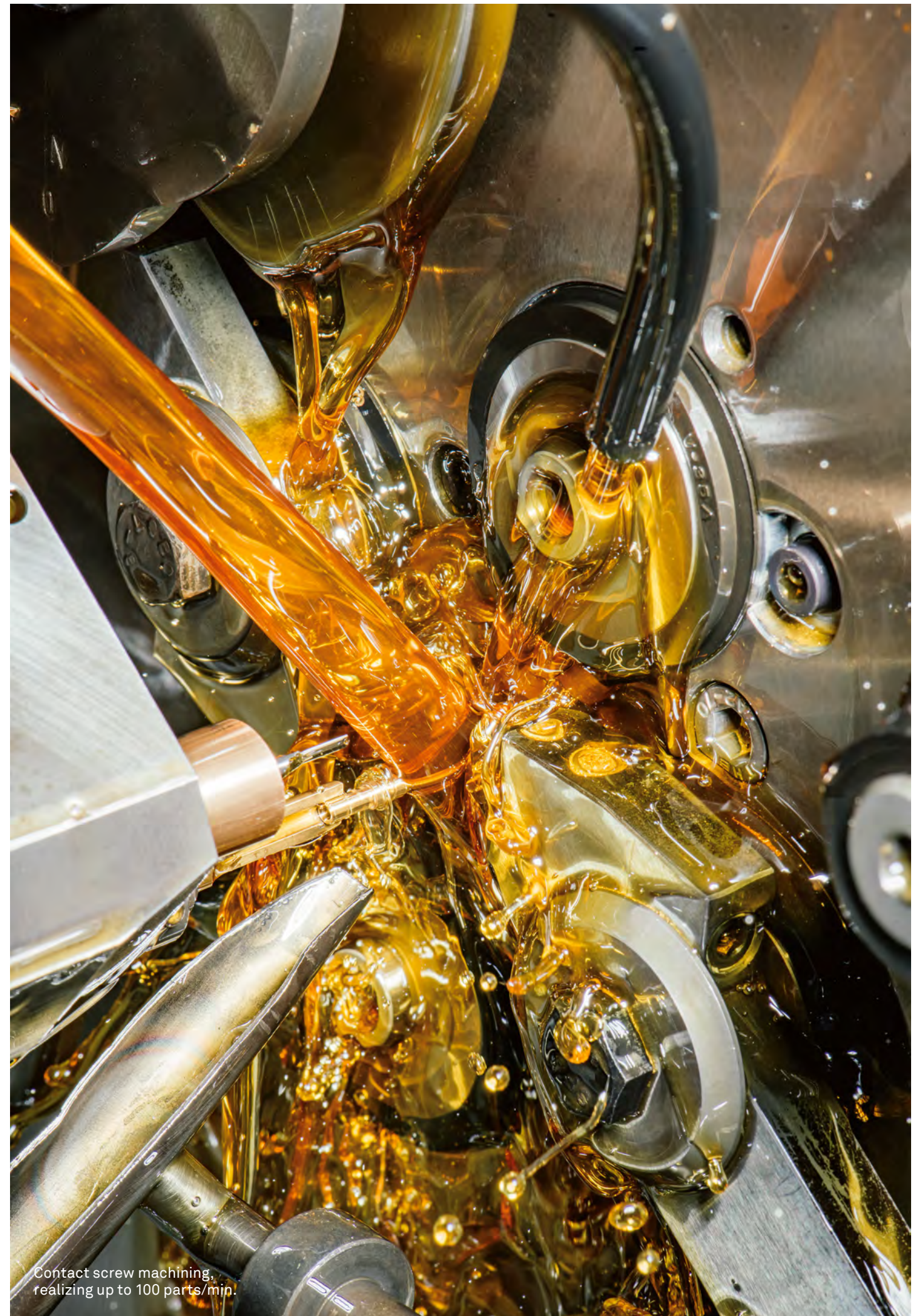
“Not possible” is *not* in our DNA.



Any customer's specification will be realized,
for instance, by utilizing the in-house
design and construction of automatic assembly
machines for contacts and connectors.



Our employees combine an in-depth understanding of materials and technology with a great passion for precision. It's no surprise that the renowned Swiss watch industry is found in the same region.



Contact screw machining, realizing up to 100 parts/min.

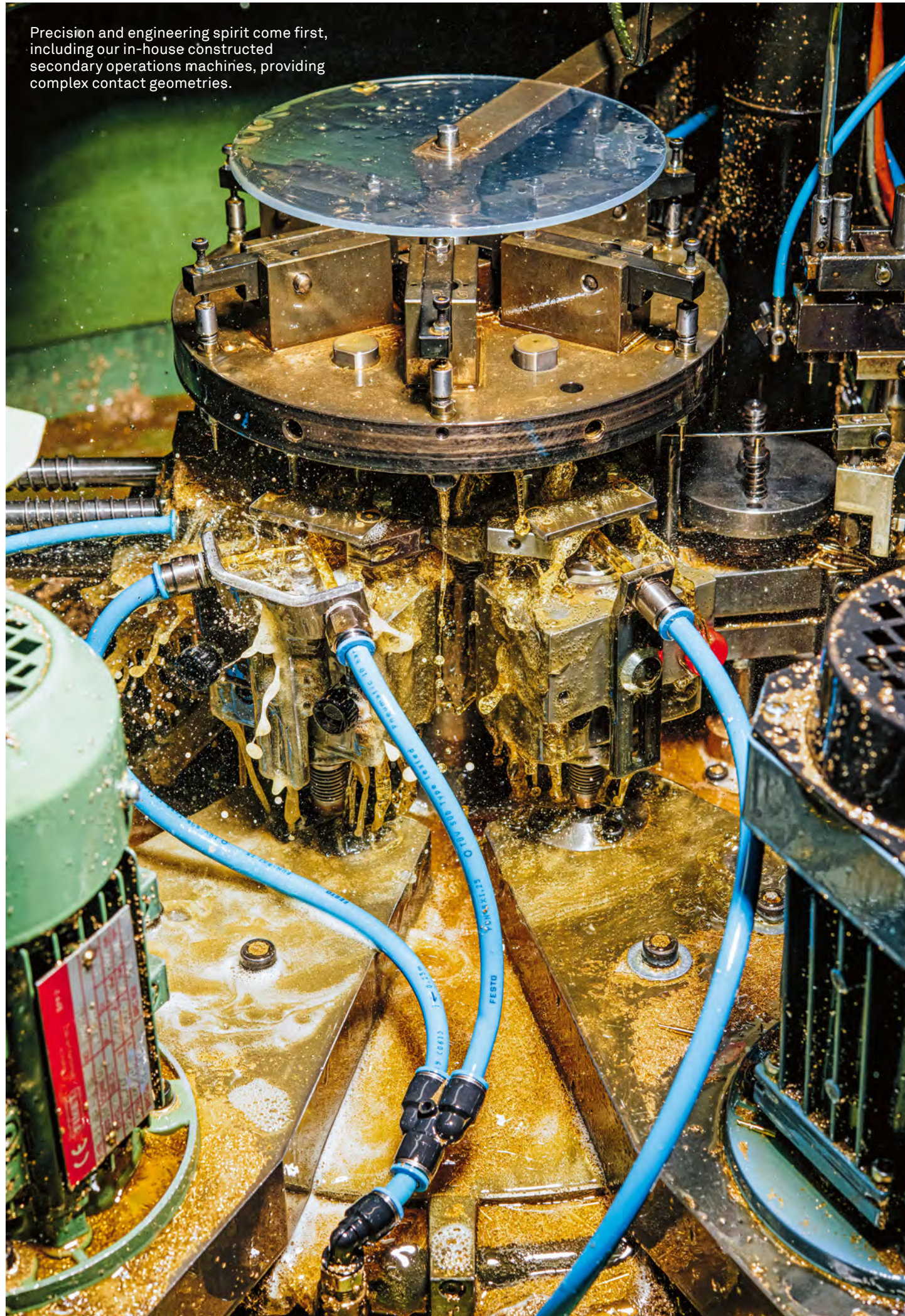


Never short of ideas, nor short of supply. PRECI-DIP operates 330 screw machines, producing 6-7 million parts per day.



State-of-the-art cleaning machines are utilized for impeccable quality.

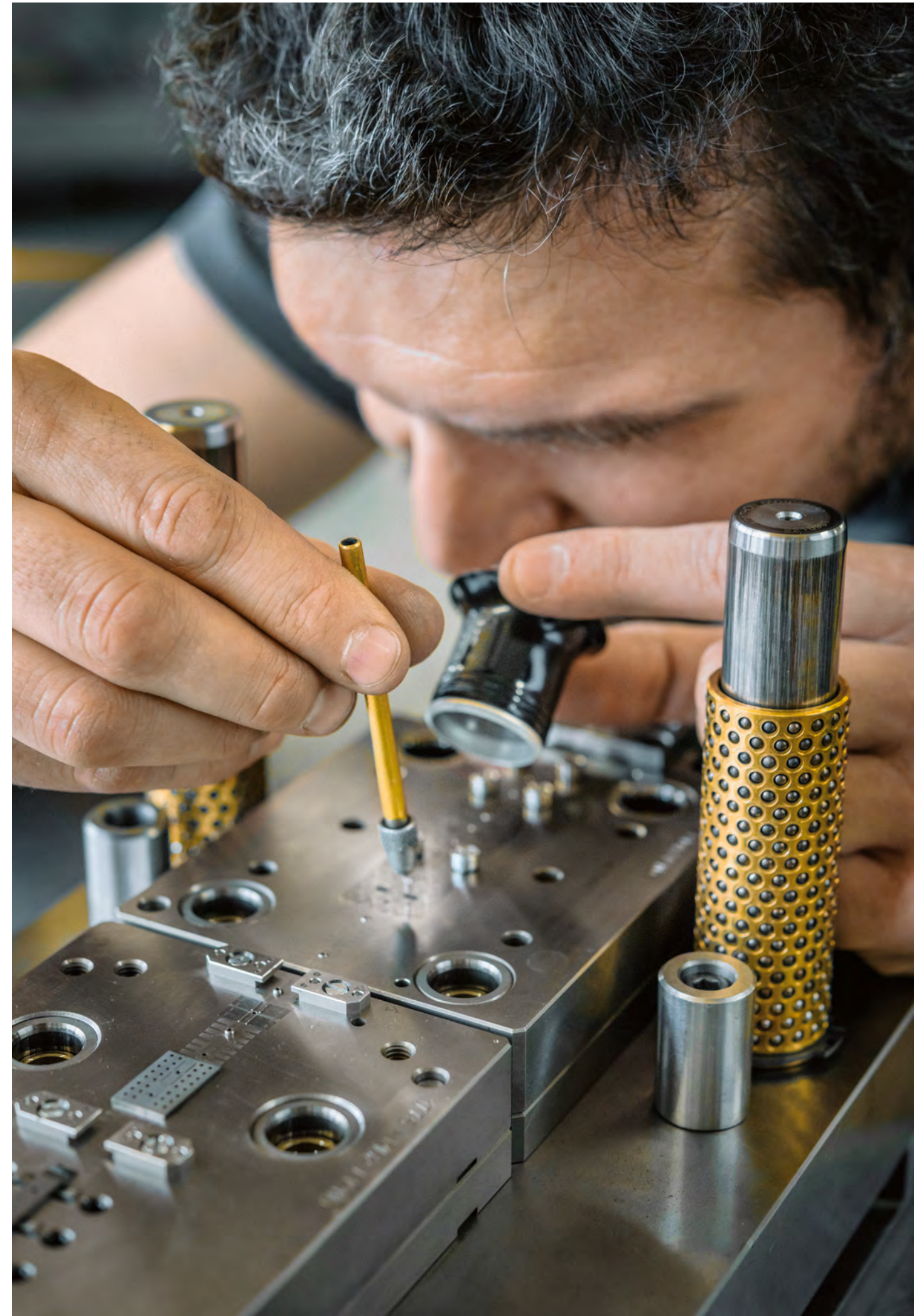
Precision and engineering spirit come first, including our in-house constructed secondary operations machines, providing complex contact geometries.



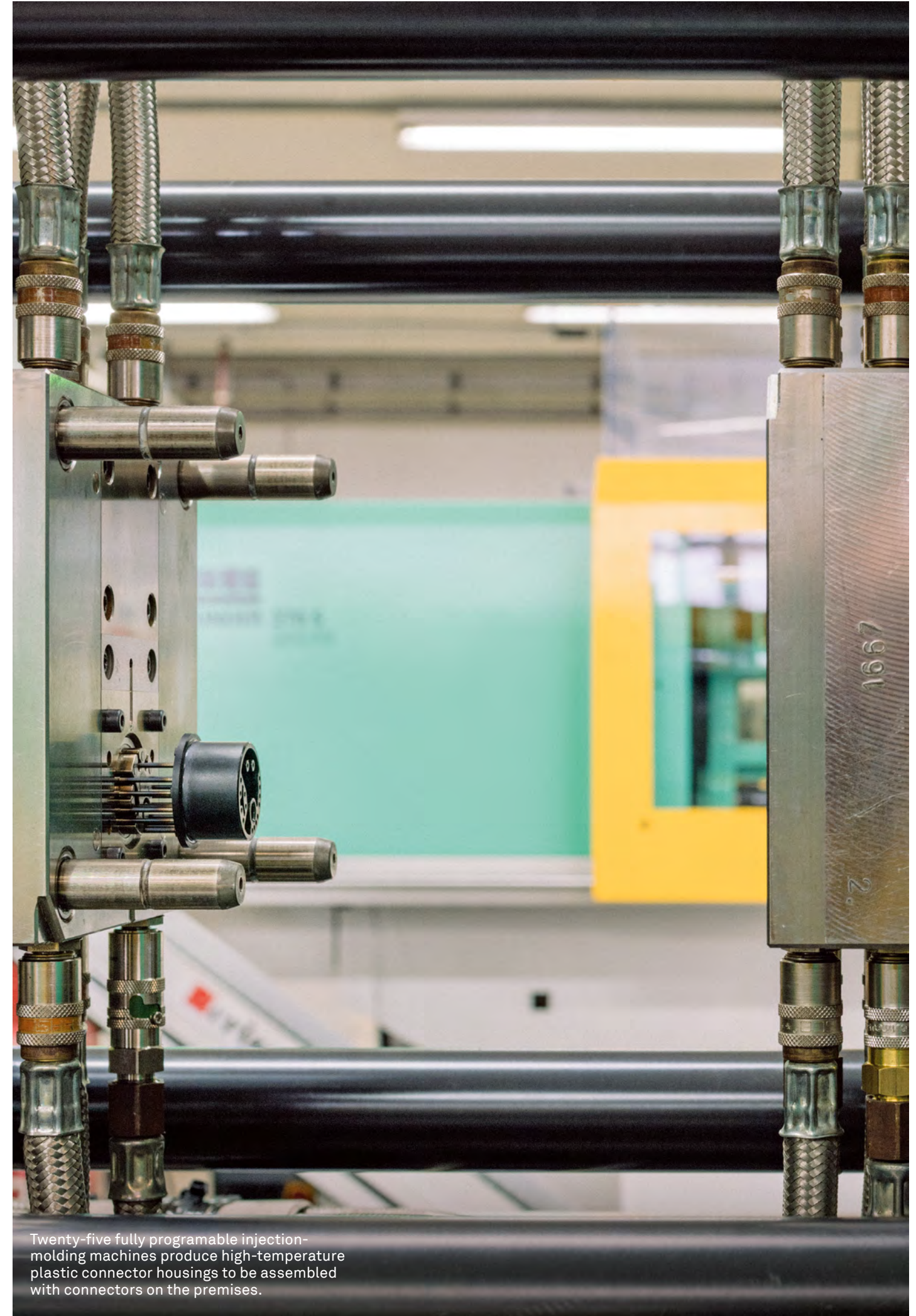
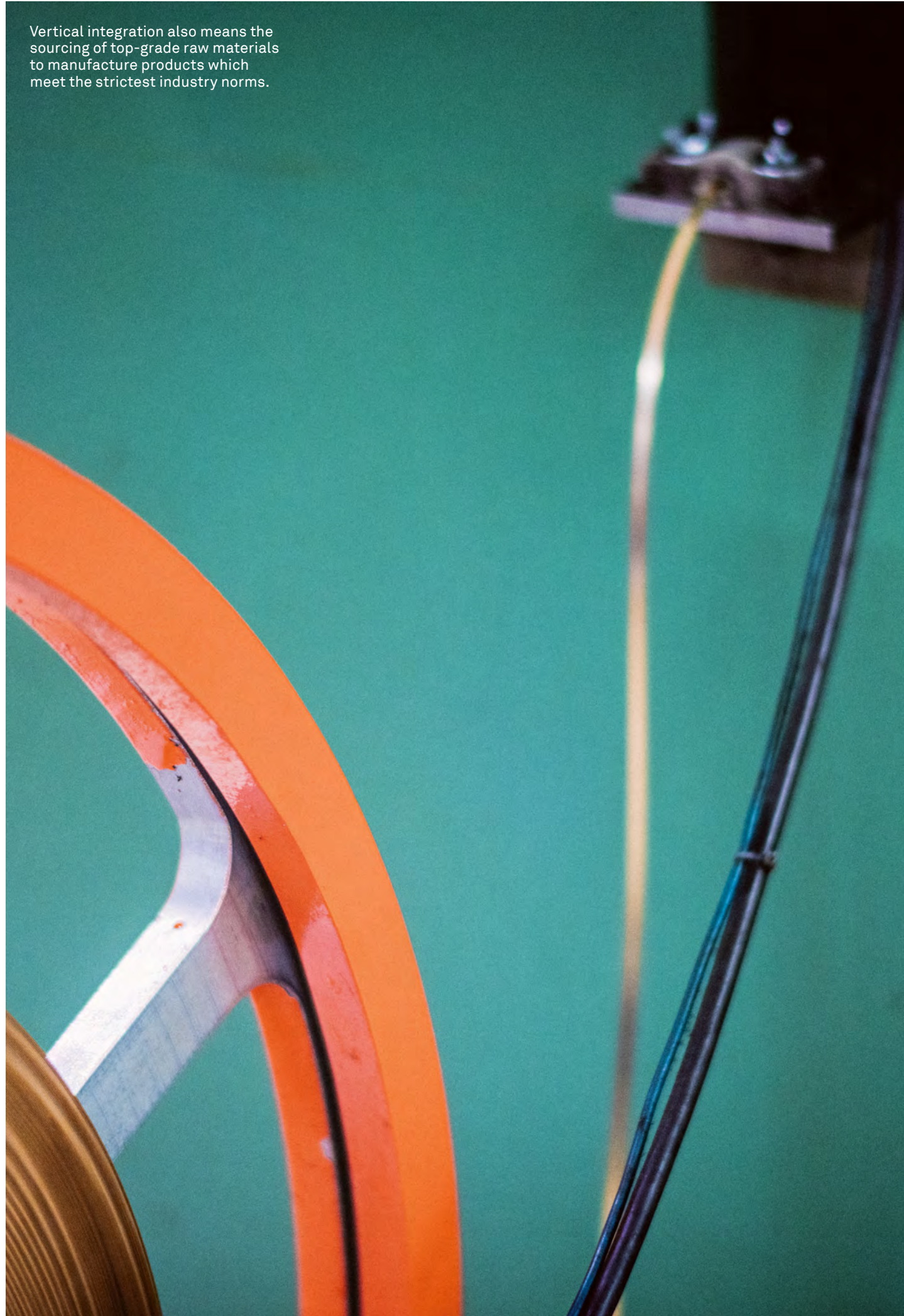
The building of our own machines builds team spirit.



PRECI-DIP is rooted in a thriving history of developing and delivering high-precision interconnect solutions.



Vertical integration also means the sourcing of top-grade raw materials to manufacture products which meet the strictest industry norms.

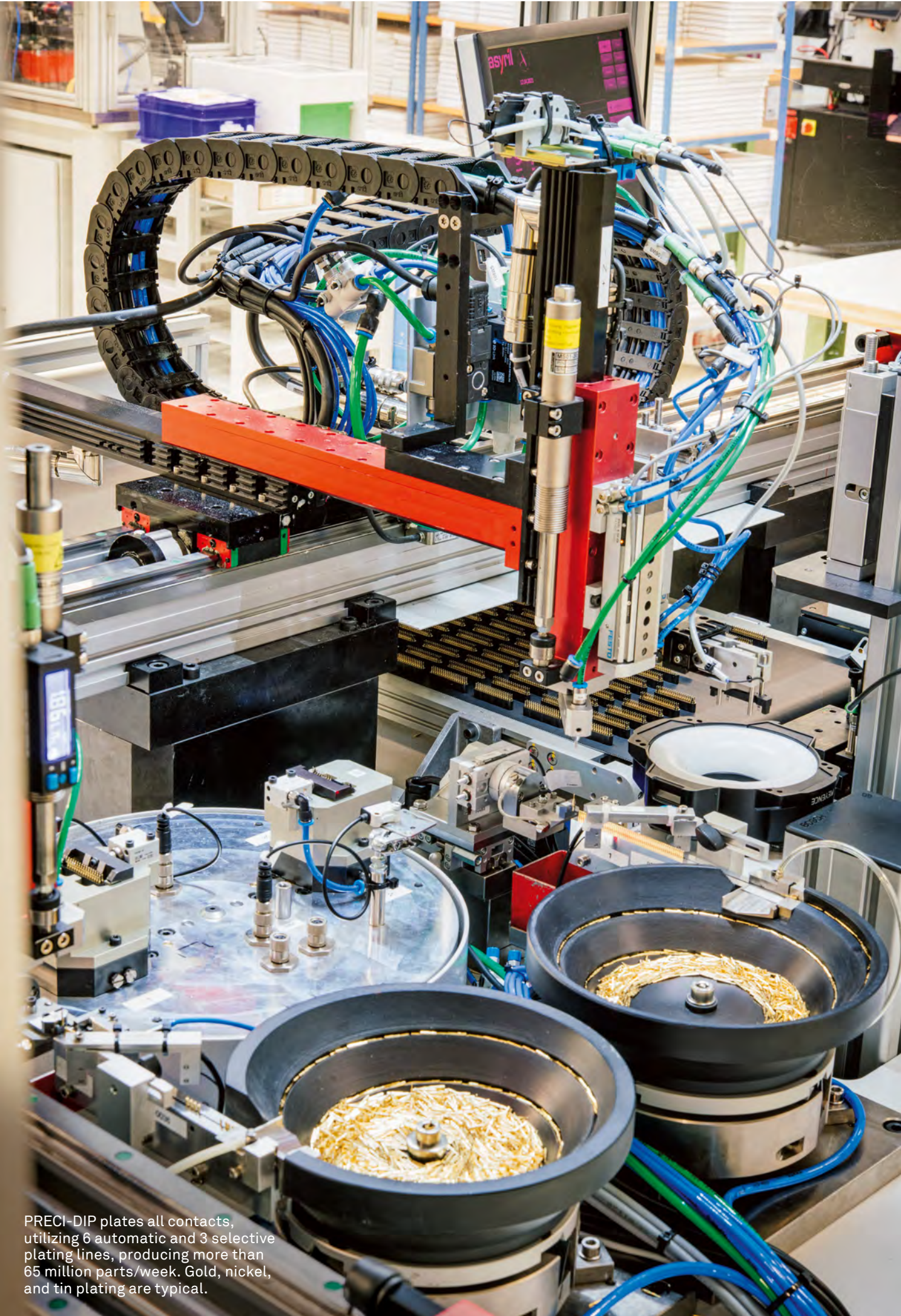


Twenty-five fully programmable injection-molding machines produce high-temperature plastic connector housings to be assembled with connectors on the premises.

Vertical integration is the sum of precisely engineered production processes.



80 automatic contact assembly machines press-fitting clips within contact housings at a rate of 120 pcs./min.



PRECI-DIP plates all contacts, utilizing 6 automatic and 3 selective plating lines, producing more than 65 million parts/week. Gold, nickel, and tin plating are typical.

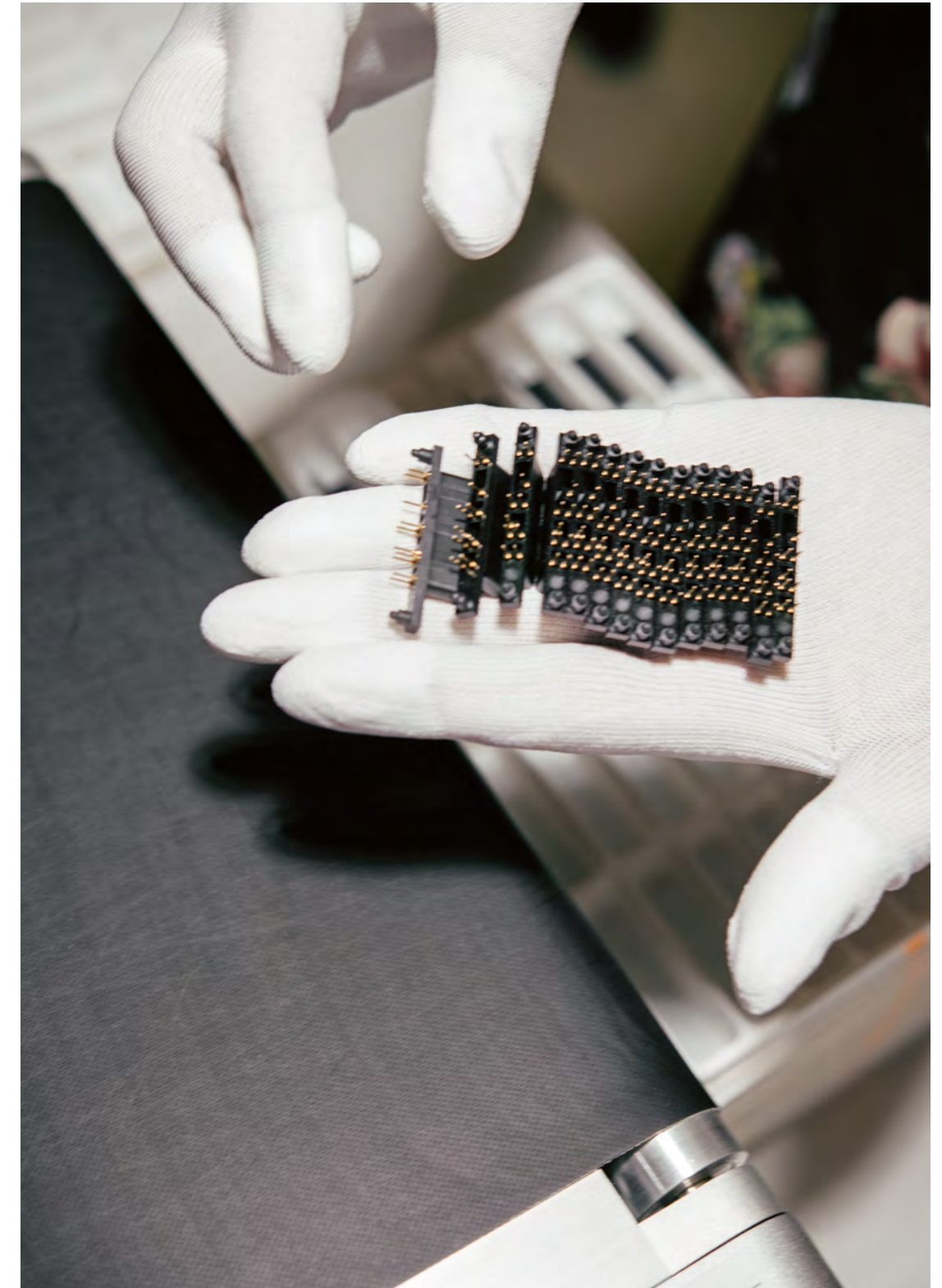


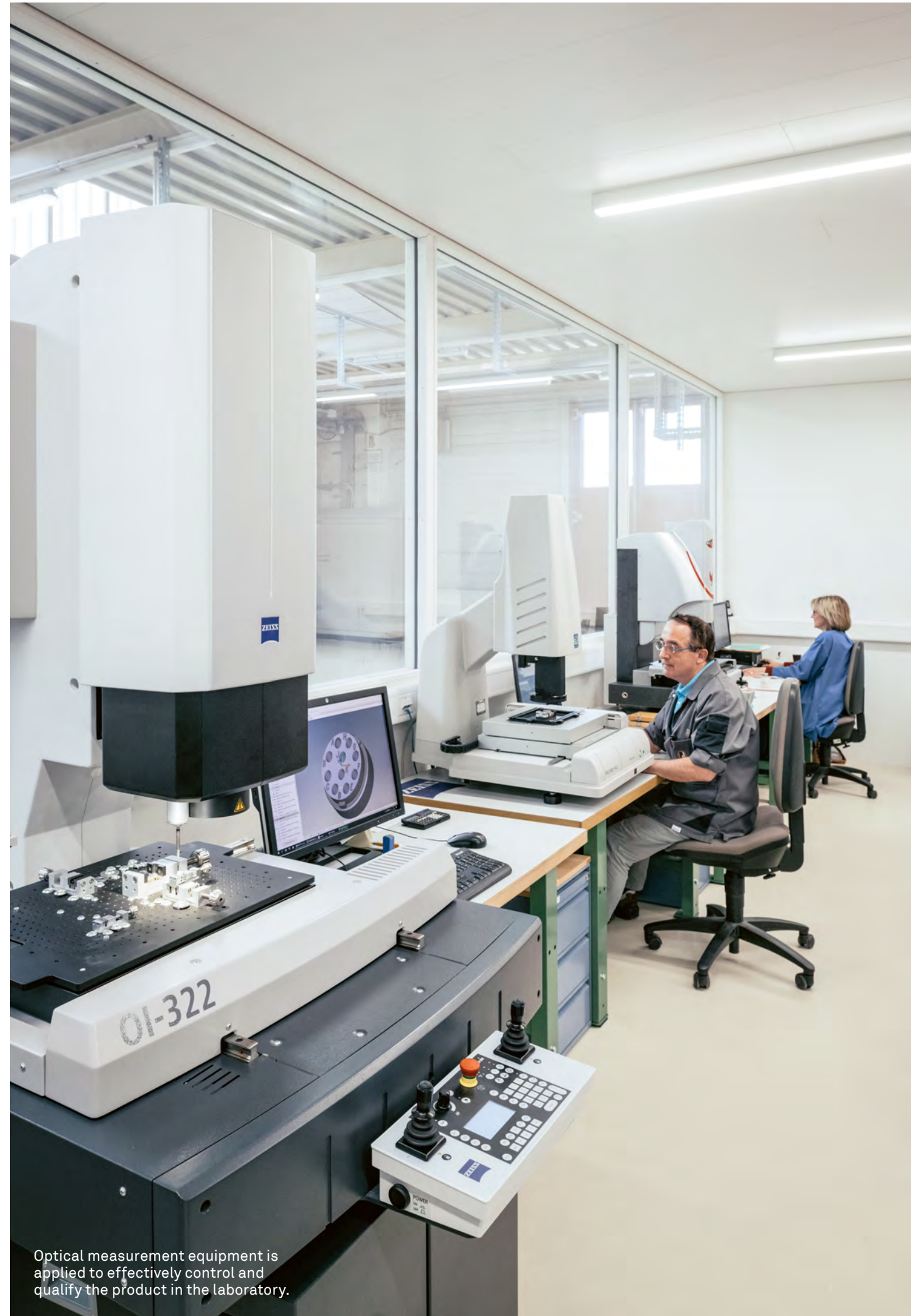
Where speed is multiplied by precision:
in-house stamping process producing
our multi-finger clips at a rate of
approximately 2,500 parts/min.

Flexible adaptation of manufacturing processes is always an option.



We also include non-human coworkers in our family. Whatever the technological development brings, we are early in adopting its advantages.





Optical measurement equipment is applied to effectively control and qualify the product in the laboratory.

**SWISS WORLD
CONNECTS
TEAMWORK
AND
SUSTAINABLE
INNOVATION.**



preci-dip

A Dedicated Team of Innovators with a Lot of Experience.

- › Nearly 20% of our employees have more than 10 years with PRECI-DIP
- › More than 10% have at least 20 years
- › A diverse culture, representing 23 nationalities
- › Opportunities for seniors and juniors
- › An emphasis on the further education of our employees, with over 12 apprentices in 6 different disciplines
- › A richness in competence with over 30 different technical skill sets

Precision, Thanks to Team Spirit.

The process of production in Delémont, where our engineers from different backgrounds mingle and share their know-how: Around this structure you will find competencies in all functional areas. A good team spirit is essential to PRECI-DIP. This is the core element of our success.

We are currently more than 350 employees, with sales offices located on 3 continents, and we pride ourselves in giving high value to a work-life balance. We seek and strive to preserve our know-how and develop the knowledge base of our employees. Hence, we privilege internal promotion and encourage continuous training programs. The ability of our employees to understand the work of their colleagues is a pillar of our success and a strong platform of stability. To know more about our core values, you can consult our corporate website: preci-dip.com.

Swiss World Connects Innovation and Sustainability.

We Are a Sustainable Company.

In our manufacturing facilities, we use over 1,200 solar panels to generate over 400,000 kWh/year of electricity. We also utilize a state-of-the-art, computer-controlled air-handling system to minimize energy waste. And we use only all-electric lift trucks to move materials. Community involvement, worldwide, is focused on sustainable objectives, like sharing best practices, and ensuring that our “footprint” is a very gentle one. In Switzerland, we replaced our water treatment system with one that recycles 90% of the water consumed within the facility, reducing consumption by 90%, and drastically reducing liquid waste.





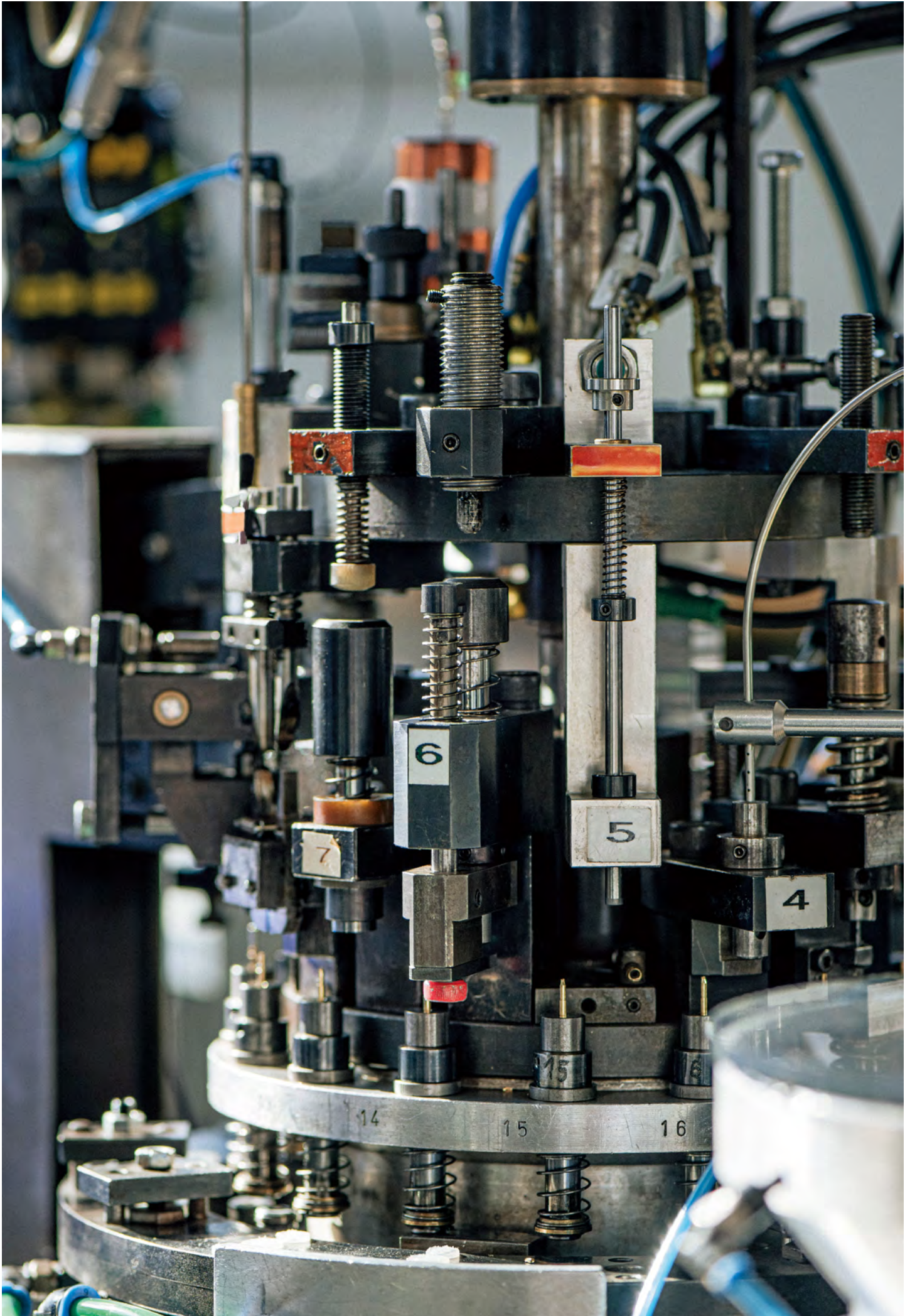
Our people are diverse, passionate, and highly proficient in developing and delivering your solutions.



Innovation through igniting engineering spirit.



PRECI-DIP is also proud to employ future engineering spirit. We give a large number of trainees, apprentices and students an opportunity to work in an interesting and rewarding industry.



**SWISS WORLD
CONNECTS
GLOBAL
SOLUTIONS
AND LOCAL
SUPPORT.**



preci-dip

Connected to Our End of the World.

PRECI-DIP is represented by dealers in 111 countries around the world. Contact us for detailed information.



Swiss World Connects: A Slogan You Can Count On.

PRECI-DIP has manufacturing facilities in Delémont (Switzerland), Shanghai (China), and Savannah (USA). Our sales teams are dedicated to customizing your solutions, and providing the utmost in local support.

We also support our customers through a worldwide distribution network that includes over 250 representatives on 6 continents. Refer to our website for more details. As a global company we comply with internationally recognized certifications, including ML-STD-790, ISO 9001, Aviasecure Cert, IATF 16949, ISO 14001, EN AS JIQS 9100, UL (E174442), Renewable Energy Certification and the Certificate Act-Energy Efficiency and Climate Protection, just to name a few.

Global Solutions and Local Support.

“We asked PRECI-DIP to produce a compact connection system which met extreme temperature and vibration performance requirements, would have a more than 12 year service life, and achieve state-of-the-art quality and reliability. They came through with an innovative concept that helped us both win. The key to their competitiveness and quality was a fully integrated, automated production system they developed and implemented in-house. The cooperation and creativity were exceptional. We are delighted to see the level of success that this project has created for both of our companies.”

Bruno Worreth, R&D, Endress+Hauser Flow

“PRECI-DIP is a very important supply partner for TTI, especially when it comes to supporting our MIL/AVIO, industrial and transportation customers. Their unique product offering and strong technical capabilities, coupled with their world-class manufacturing resources and highly responsive customer service, allow TTI to provide its customers with a differentiated value proposition. Their ability to offer custom-designed solutions provides an exceptional opportunity for us to address our customers’ unique requirements, and separates PRECI-DIP from many other suppliers. And now, with their new facility in Georgia operational, they will be able to support our needs in an even more timely manner, and with components produced in the USA. We value the relationship we have with PRECI-DIP, and our sales team knows that we can rely on them to support us and our customers.”

Lew LaFornara, VP, Product and Supplier Marketing, TTI Inc.

PRECI-DIP Connection Technology

Custom design is our main strength, and your advantage, when your ideas need a development partner.

Vast experience with countless standard products and more than 20,000 references.

Everything under one roof worldwide: We master all key processes in-house, from raw materials to finished goods.

Passionate talent, igniting visionary team spirit for world-leading quality products from our facilities everywhere. That is the PRECI-DIP difference.



preci-dip

PRECI-DIP SA
Rue Saint-Henri 11 P.O : Box 834 CH-2800 Delémont, Switzerland
T +41 32 421 04 00
Contact us for more information: sales@precidip.com

PRECI-DIP LLC
25 Oracal Parkway Ellabell GA 31308 USA
T +1 912 851 0225
Contact us for more information: salesusa@precidip.com

PRECI-DIP Connector Shanghai Co., Ltd.
4th floor, Building# 3 No. 58 Wenxiangdong Road, Songjiang district
Shanghai, China, PC 201613
T +86 21 60291752
Contact us for more information: sales@precidip.com

www.precidip.com



swiss world connects