AMEPA
Process Measurement Systems

Technology Matters.

Measure it. Control it.

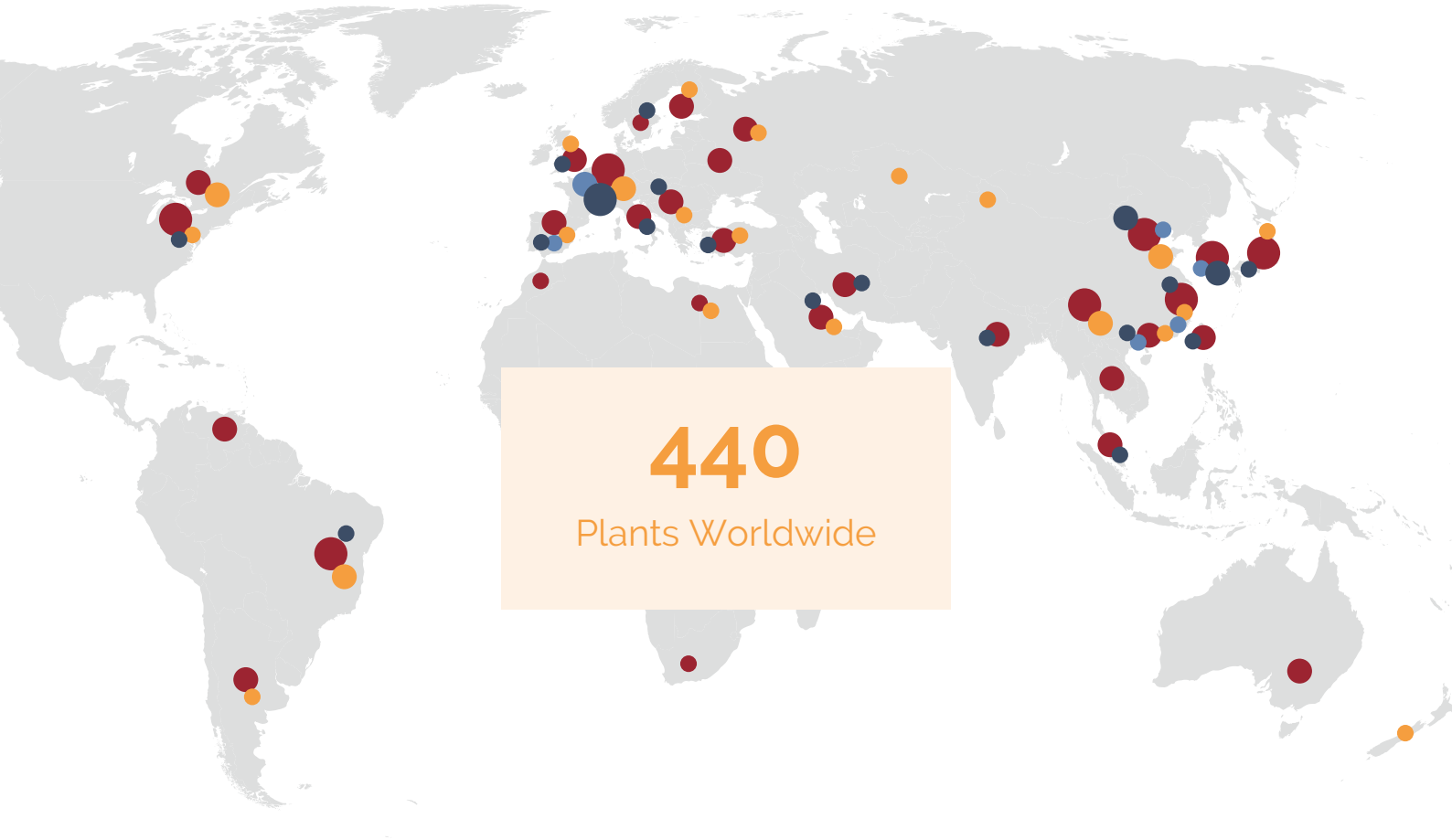
AMEPA
Successful Throughout the World

For more than 35 years, AMEPA GmbH, a company which is based in Würselen, Germany, has represented the development and implementation of innovative measurement system solutions in close cooperation with the steel, aluminum, and automotive industries. In our role as the technical partner for electromagnetic and thermographic slag detection, contactless online roughness measurement and oil layer control, we represent quality and engineering – Made in Germany.

Our systems always ensure the highest possible quality standards throughout the entire process chain, commencing with the production of high-purity functional steels and extending to the forming tribology for the rolling processes and pressing processes in automotive manufacturing.

Our customers can always rely on the reliability and precision of our measuring systems. The individual adaptation and integration of our systems into the customer environment create the basis for smooth quality assurance in the customer process.

As a spin-off of RWTH Aachen University, we are closely linked to the region and still work very closely with the University of Applied Sciences institutes and Fraunhofer societies for our innovations. Building relationships with local supplying companies and business partners is essential to us. With more than 440 plants and systems installed in 34 countries, AMEPA systems have now become a global standard. Our subsidiaries in the USA and China, as well as our global marketing, sales, and service network, guarantee comprehensive support for our customers.



440

Plants Worldwide

The steel, aluminum, and automotive industries have trusted AMEPA's know-how and service for years.

34
Countries

300
Global Customers

Clean Steel & Perfect Surface

Slag detection in the liquid stage

Our slag detection at the electric arc furnace, converter (TSD), and the ladles (ESD) reduces the slag which could be brought into the product through all process steps, and at the same time, increases the output by reducing the amount of residual steel. AMEPA Slag Detection Systems, therefore, make a significant contribution to the economic efficiency of the entire process.

Steel has been considered a high-tech product for a long time, and the demands for precise material characteristics and properties, and repeatable quality continue to increase. Precise slag detection enables you to reduce slag discharge, increase your quality, and fulfill your customers' requirements.

Surface area parameters for sheet metal

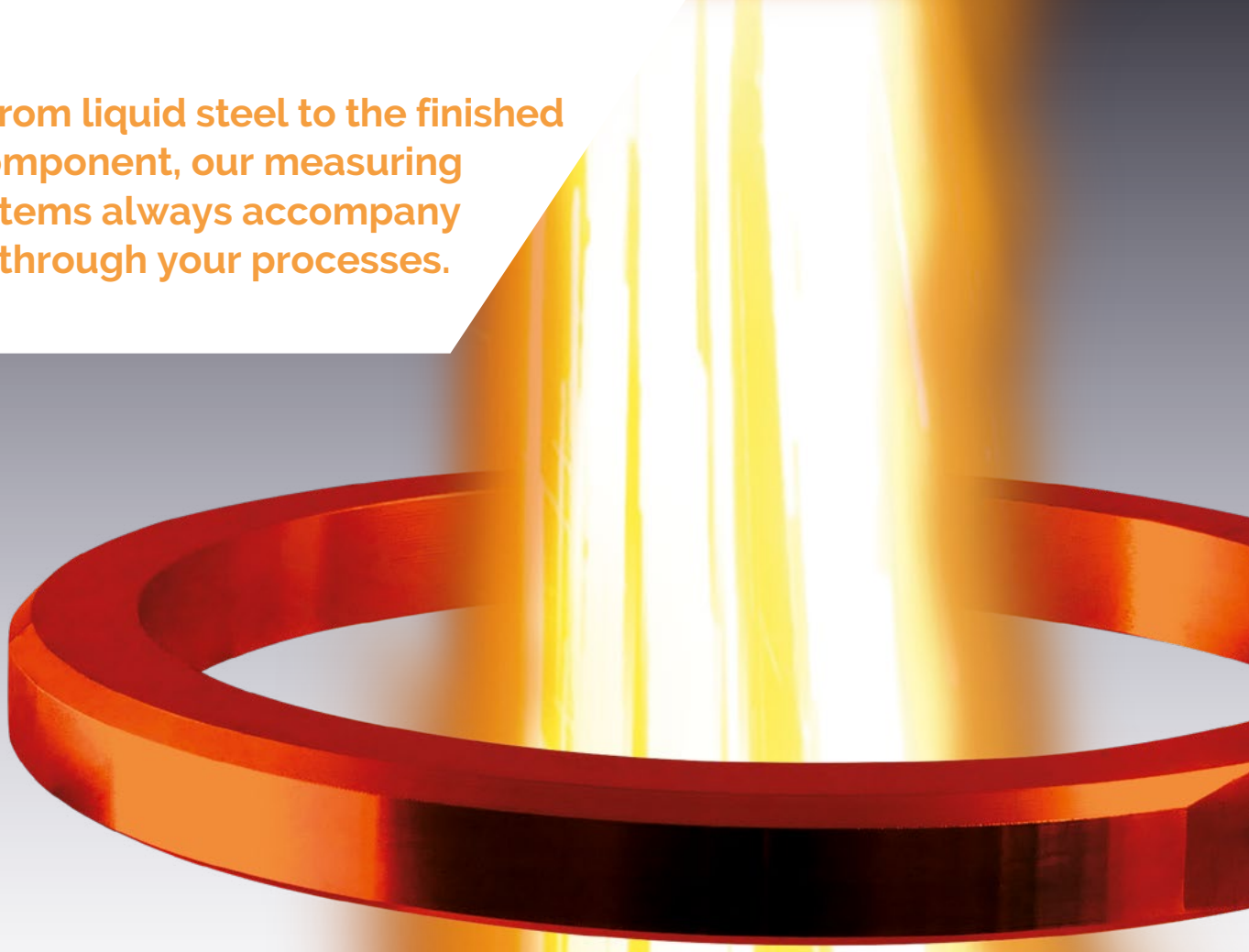
Regardless of whether this refers to aluminum or steel, surface area characteristics are becoming more and more process-relevant, and customer requirements are more and more product-specific. With our measuring systems for roughness (SRM), waviness (WMS), and oil layers (OFM and OFIS), you always have your quality in view at all times. Even the smallest imperfections on the metal strip can mean a large scrap level for the customer. In car bodywork and chassis construction, with today's design requirements and modern thin-layer paints, the smallest defects on sheet metal are immediately visible on the end product.

You can detect and eliminate deviations in the production process or during inspection and deliver the highest quality to the customer.

37
years of experience

+500
Millions of tons of steel per year are monitored with our slag detection systems

From liquid steel to the finished component, our measuring systems always accompany you through your processes.

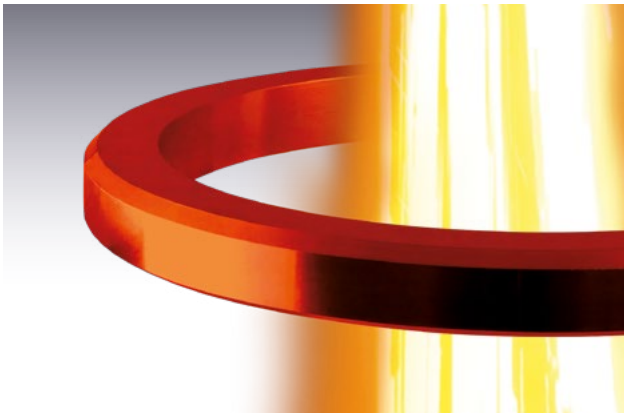


ESD – World Market Leaders

AMEPA succeeded in taking early, innovative steps with our electromagnetic slag detection system, making the company the world market leader and contributing to our customers' sustainability for decades.

In addition to the headquarters in Germany, our USA subsidiatry, and numerous international agencies, AMEPA started business operations in January 2020 with AMEPA Trading Shanghai as the successor to our representative office to offer our customers in China even better support.

Our Products

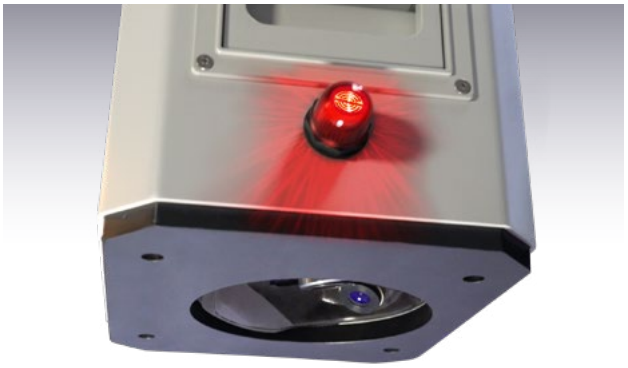


ESD

The ESD Electromagnetic Slag Detection on the outlet of the ladle generates an alarm as soon as slag flows through it. Automatic closing of the slide-gate enables the slag flowing through to be reduced by up to 90 %. The steel output is increased, and its quality is enhanced. Longer sequences and fewer interruptions contribute to high efficiency.

TSD

AMEPA's optical slag detection system utilizes a thermographic technology in order to detect the flow of slag when transferring from an oxygen steel converter or electric furnace to the ladle. The measuring system, which comprises an infra-red camera, an evaluation computer, and a display device, supports the user to reliably end each tapping process at the optimum time. This minimizes slag transfer onto the next process step and prevents time-consuming slag removal operations.



SRM

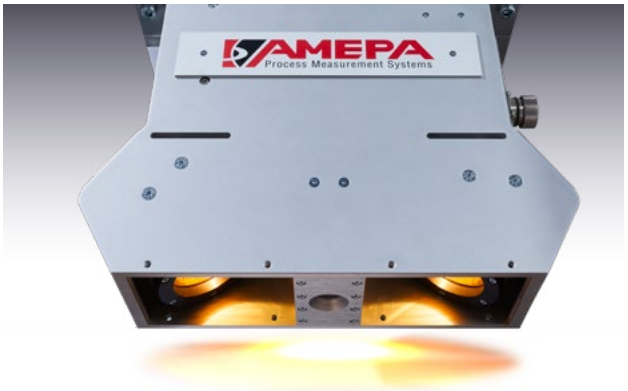
The surface roughness is a relevant parameter for the process control of texturing sheet material and is critical for additional processing and product shaping. Typical applications for this measurement are located in rolling mills for the continuous inspection of coils and in press shops for controlled inspection of blanks for products in the automotive industry.

44

Kilometers of strip per minute are measured by our OFM and SRM systems - i.e. 1.58 times the circumference of the earth per day.

WMS

Waviness Measurement System reliable detects ripple values outside specified tolerances enables optimal process control, short response times, and increases dynamics. Waviness measurements are possible on strip speeds up to 180 m/minute with a measuring range of 0.1 to 1 µm and a resolution of 0.001 µm.



OFM

Oil Film Measurement can be utilized in steel, aluminum, and automotive production processes. Users in the rolling mill and the press shop can utilize the measurement results for optimizing their processes. Timely detection of oiling errors with immediate online warning can reduce the number of customer complaints and faulty production quantities.

OFIS

Specifically designed for industrial use, measurement with the Portable Oil Film Measuring Device is possible directly at the production location. The OFIS enables the reliable detection of dry streaks and incorrect oiling, with an immediate warning in the event of deviations in oiling, and provides long-term archiving of quality data for TQM.

For optimized customer support worldwide, AMEPA has established a sales and service network with regional points of contact that ensure easy and fast touch points for customers. Local sales partners are in constant contact with AMEPA and are consistently supported by the AMEPA engineering team.

AMEPA
Service – Team – Global

You don't just purchase a measuring system when you come to AMEPA. We always keep your long-term satisfaction in mind and provide you with a comprehensive service, from consultation in the concept stage through service in daily operation.

AMEPA has a team of internationally experienced service engineers at its disposal as well as a worldwide partner network with contacts in your vicinity.
Our service staff remains as your personal contact even after commissioning is finalized.

We respond individually to your requirements and local circumstances and can always offer you customized service packages, also for your spare parts supply chain.

We are always pleased to offer you service contracts. We provide you with fast and uncomplicated support for all questions and settings that relate to supporting your quality measurement system. Annual services and inspections can be integrated into the contract so you can be sure that your AMEPA measuring system is always reliably and precisely measuring the quality of your products.

With our remote service capabilites, we can help you solve issues more efficiently and offer internal and external audits.

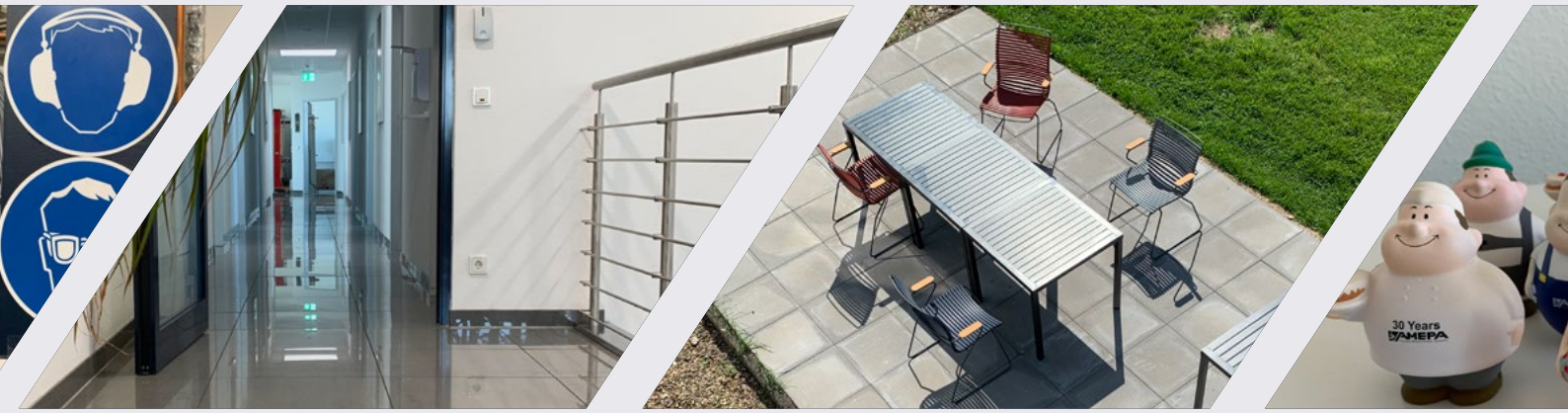
Your satisfaction is always AMEPA's highest priority.

Team – Life – Future
Recognizing New Values

Digitalization, home office, work-life balance, new values, and social changes have had an enormous impact on the working world in recent years. AMEPA has recognized the changing times and has embraced social changes. As a result, the technical facilities for employees have improved significantly. Internal indoor and outdoor meeting points and additional seating areas have also been set up and modernized.

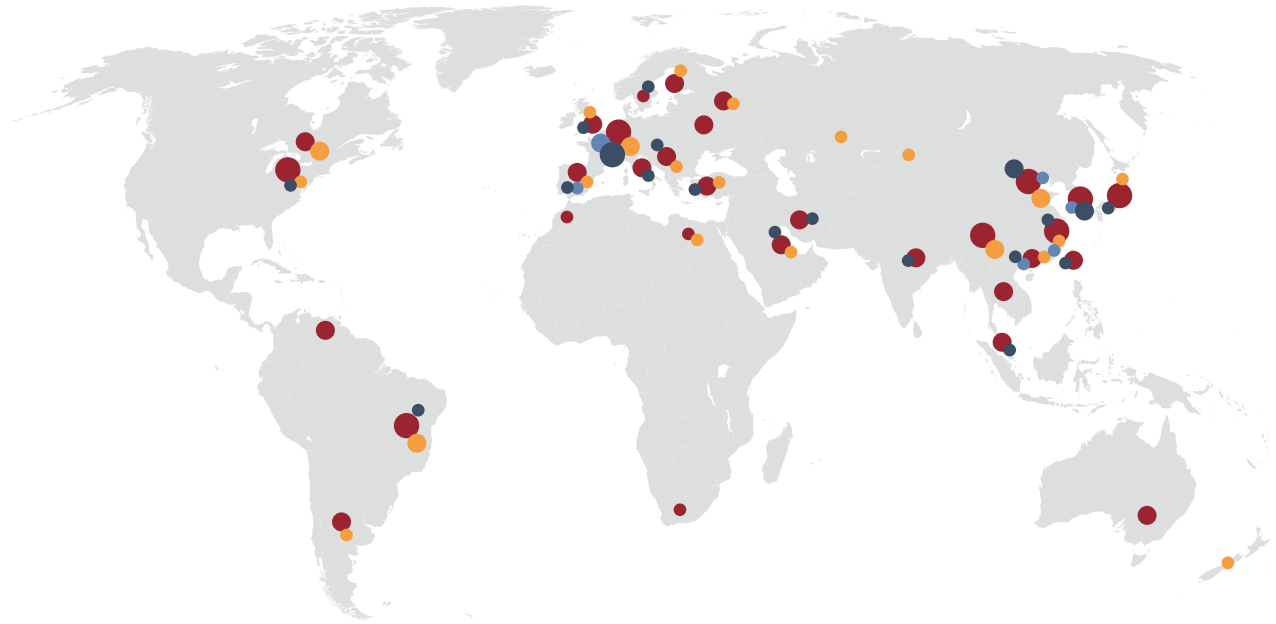
Mobile working is made possible where it makes sense and conserves resources. After all, sustainability is not only promoted by our products but is also increasingly practiced internally. Our community garden and the leasing of e-bikes for our employees exemplify how we can experience our working environment as more environmentally friendly in the future. There are also contributions with which we encourage employee interactions outside the workplace.

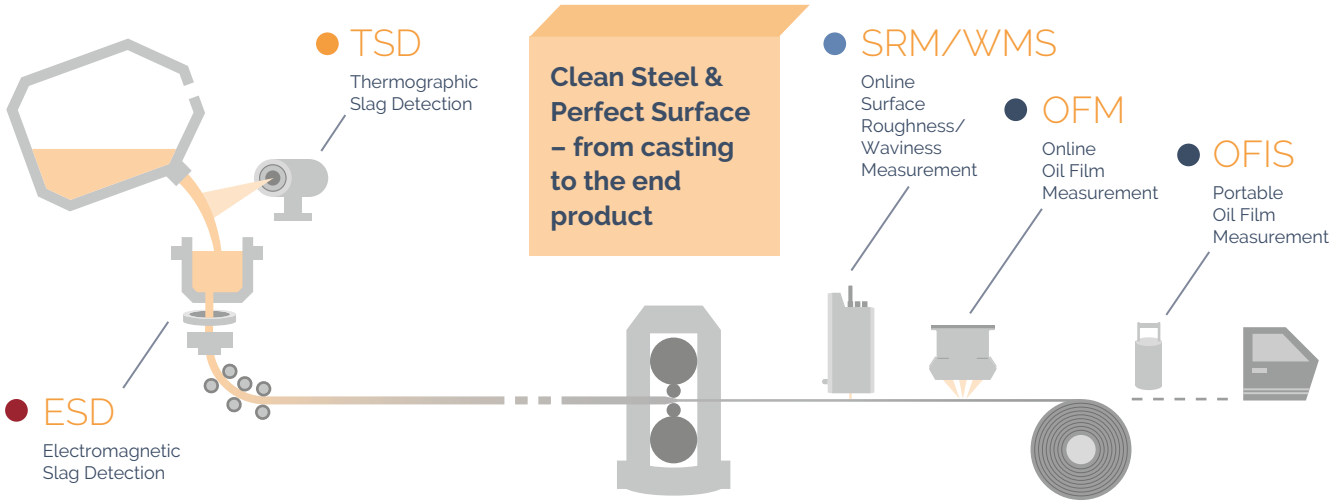
Our experienced engineers have a high level of technical knowledge to pass on to our young professionals, who are encouraged to start their careers by sharing their new initiatives, fresh ideas and implementing them at a high level.



AMEPA
Process Measurement Systems

Worldwide successful





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