

Innovation - right from the start

1920

Foundation of the company Roell + Korthaus by Mr Paul Roell and Mr Alfred Korthaus

1921

Mr Paul Roell takes over the sole management

1952

Mr Werner Paul Roell becomes managing director of the company

1982

Takeover of the Amsler company in Schaffhausen

1986

Integration of the machine factory MFL, Mannheim

1986

Takeover of the company Toni Technik, Berlin

1989

Dr Jan Stefan Roell becomes managing director of the Roell Group

1992

The Roell Group consolidates with the Zwick company. The activities are united and consolidated in the Zwick Roell Group

1998

The companies Dartec, Rosand and Kelsey become new members of the Zwick Roell Group

2001

The Zwick Roell Group is reorganized in a corporation

2002

The French company Acme Labo joins the company group

2003

The dynamic product portfolio of Roell Amsler is integrated into the product portfolio of Zwick, Ulm

2005

Zwick strengthens its market presence in Japan through a joint venture with Tokyo Koki Seizosho



Roell Amsler

In 1920 the company Roell + Korthaus was founded by Mr Paul Roell and Mr Alfred Korthaus. From 1921 Mr Paul Roell continued the company as an engineering office with its own machine production. In the 50s the engineering office became an internationally active company. In 1982, the Amsler company, Schaffhausen was taken over. The Swiss company was founded by Prof. Dr. Jacob-Amsler Laffon in 1854. As early as in the eighties of the last century the first hydraulic materials testing machine was developed. Now former Roell Amsler products are continued at Zwick in Ulm.

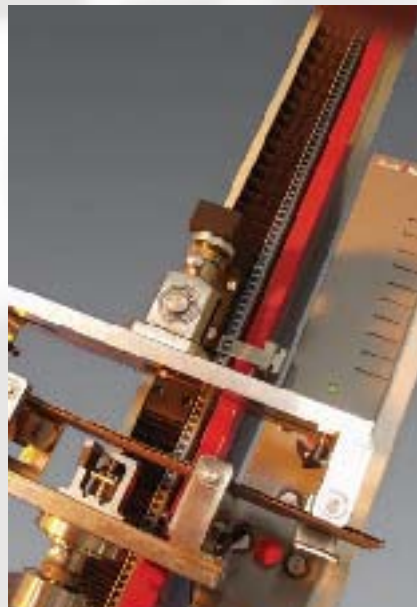


Toni Technik

In 1876 Prof. Hermann Seger founded a chemical laboratory as a scientific-technical consulting company for the nonmetallic minerals industry. During the 20th century today's company Toni Technik has developed and is now considered an expert for building materials testing machines.

Zwick

Mr Franz Zwick sen. purchased the „Zwick premises“ located in Ulm-Eisingen. In 1938 the inefficient button production was discontinued. The technical designer, Mr Max Späth, developed a program for the production of testing machines. In 1949 new, important customers could be acquired and international contacts could be established. Zwick was the first European company to use electronic measuring systems for tensile tests. In the following decades Zwick became one of the leading manufacturers of materials testing machines worldwide.



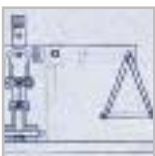
Materials testing - a backward glance with sights set on tomorrow



Materials testing yesterday

The assessment and comparison of materials undoubtedly go back to the prehistoric era. It was this very ability to compare materials which permitted prehistoric man to survive, giving him the spear which could pierce the body of the bear, and the ploughshare with which the earth could be worked. The stone axe had to be harder than the wood it was intended to hew and the chisel more resistant than the stone to be carved.

Leonardo da Vinci, the genius artist, inventor and researcher of the 15th century, made, among other things, a simple tensile testing device for wires - an early predecessor of today's universal testing machines. And around a hundred years later, Galileo Galilei, who is considered the founder of the science of material strength and materials testing, conducted studies and theoretical reflections on the elastic behaviour of materials.



The first systematic resistance tests began in the mid-18th century in England. The first materials testing machines came into existence in France.

Then, in around 1850, J.L. Werder developed the first German universal testing machine.

Now the discipline of "materials testing" became increasingly more important. One of the interesting company foundations in this context was that of the Roell + Korthaus company in 1920; it marked the beginning of the Zwick Roell group of companies that now operated internationally.

Modern testing systems today

The comparative assessment of different materials has developed into a highly technical discipline - modern mechanical materials testing. This makes it possible today to stress defined material samples and components and to reproducibly measure and assess the resulting forces exactly.

With perfected mechanical testing devices and systems, modern measuring and control technology and an intelligent software, deployable for all systems, Zwick Roell not only meets today's high requirements, but is also ideally equipped for future applications.



Communication - Our Key To Success

Customer satisfaction

is the top target of Zwick Roell AG. Experts are continuously working on the development of better products and better service. The communication between customers, employees and suppliers provides the necessary feedback for the development, improvement and optimization of products and services. Close cooperations with universities, colleges and national materials testing laboratories furnish ideas for new test methods and procedures.



Trade Rendezvous

In order to provide our customers with the most complete information possible, we take part in all important national and international trade fairs. Our annual forum for testing technology has almost become a tradition and is an international trade venue with visitor numbers that increase every year.



Ongoing Contact

We are happy to extend an invitation to visit our factory to interested parties so that they can experience the company and the products first-hand and on-site. And because our customers' opinions are so important to us, we have created the Zwick Roell forum. Events take place in all larger cities at which we present our new developments.

The customer magazine "testReport" and our online newsletter provide information at regular intervals on new products, solutions, and practical applications. That's how a productive interrelation between our company and our customers came about.

Trainings, seminars and the annual trade fair are regular events and provide a good opportunity for an exchange of information and for advanced training



Worldwide presence

Zwick Roell is a modern organization and active worldwide. In addition to the production plants and sales offices in Germany, UK and France our organization is represented in more than 55 countries by sales offices and service organizations providing a wide spread customer service network (consulting and support) for all material test-specific questions. A large number of Zwick testing machines are being used worldwide and perform reliably every day. They are to be found in all industrial sectors. The customer can always rely on the high quality standard. This reliability is guaranteed by our quality management system (certified according to DIN ISO 9001) which ensures that our customers can count on having made a profitable investment.



Global services

The change from a pure manufacturer of testing machines to being a global service provider in the field of materials testing was resolutely pursued in our company. In addition to the supply of precise, innovative and reliable testing machines Zwick Roell has become a leading manufacturer and also offers materials testing engineering, project management, user seminars, calibration and upgrading of testing machines.

Always present
for our customers
worldwide



Your partners are our sales- and service organizations which are to be found in all important markets worldwide. The local organizations know the special regional market demands and can react to the individual requests of their customers. Our strength is to overcome international and regional borders in every day cooperation and to find customized solutions for all test requirements. The customer receives an ideal solution from one supplier and one partner.

testXpert® II - Intelligent and Reliable

With *testXpert*®, Zwick Roell created a standard for intelligent materials testing software. With *testXpert*® II you benefit from more than 80 years of experience in materials testing and from more than 10,000 successful *testXpert*® installations worldwide.



testXpert® II offers these significant benefits:

A uniform operating concept - *testXpert*® II offers a uniform software platform for all applications - regardless of whether they are static or dynamic tests.

Ingeniously simple - *testXpert*® II stands out primarily by virtue of the simplest and most intuitive operation which reduces the time it takes to begin testing significantly.

Intelligent - The reliable wizard guides you quickly through the testing setup when modifying test applications and reports.

Compatible with your hardware - *testXpert*® II does not require an additional card and is compatible with all conventional PCs and laptops, and can be installed on any number of PCs or laptops. Wherever you may be, you will be able to access your test data.

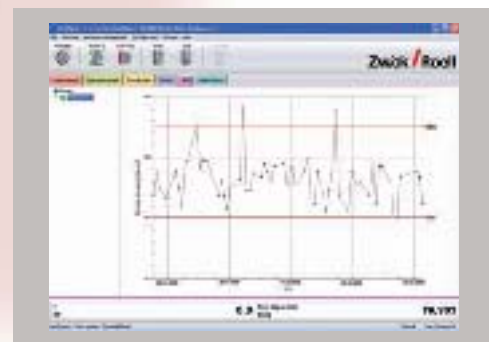
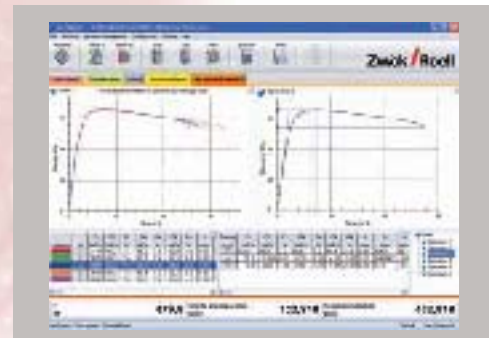
Data export - *testXpert*® II communicates with your third-party software reliably via powerful and flexible interfaces.

Exact video recording - Only *testXpert*® II offers you a frame-by-frame video recording of your test synchronized precisely with the test sequence.

testXpert® II LIMS - *testXpert*® II provides an integrated laboratory information management system.

Graphical sequence editor - Now you can be completely individual and create test sequences of any kind and completely without any programming expertise.

Virtual testing machine - Simulates your test without a testing machine in order to safeguard your samples and to ensure optimum results.



Personalized and customizable screen layouts, LIMS and exact synchronized video recording as examples: testXpert® II provides an extensive selection of options - simply ingenious!

Technical development does not know stagnation: New technologies, new methods and new materials determine progress. The standard is high. For construction and production minimum material and energy consumption is required.

Safety first



Product safety

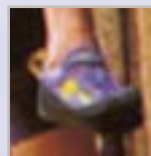
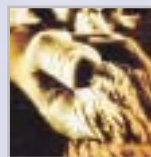
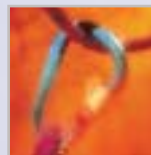
The most important features of the product are minimum dimensions and light weight.

The general demand is for light-weight construction with maximum strength. This leads to parts and components made of new types of materials manufactured by means of the latest modern technologies. The demands on test methods have increased rapidly.

Only high-tech testing technology with the closely connected processes of "measurement" and "testing" can meet the high demands. This high-tech testing technology alone provides information for material- and application-related statements. Only the modern testing machine can supply the required data for the simulation and verification of results.

So, the modern mechanical testing technology has become a guarantor for material- and component part safety – with efficient testing machines and systems from Zwick Roell.

Tested safety - with testing machines and systems from Zwick Roell



Our potential - Our employees

Training

Outstandingly trained and highly-motivated staff provide the base for the successful expansion of our national and international activities. In this context, we place enormous importance on primary training in the technical and commercial fields. We provide an interesting range of opportunities to ensure the emergence of a competent new generation of skilled tradesmen and executives. These include numerous typical apprenticeship training positions, places for practical placement, and dissertation topics for engineering undergraduates.



Further training

Even external professionals can look to a successful future with us, as proven by the number of new jobs filled by external applicants. We place particular emphasis on systematic further training for our staff, thus ensuring that each employee is thoroughly up to date on the latest developments. Our good social benefits, in particular our employee pension scheme, are reflected in the above-average loyalty to the company.

Qualified employees and a motivating working atmosphere are the base for the quality of our products



Quality - In harmony with the environment

Quality management

Zwick Roell testing machines are used primarily in quality assurance. This aspect places high demands on the quality of our products and that is taken into account when manufacturing them. The affiliate companies of the Zwick Roell group can sport a proven quality management system that is ISO 9001-certified. The regularly conducted internal audits together with the external monitoring audits support checking objectives, defined processes and activities, and maintaining the on-going improvement process.

Product safety

Product safety is guaranteed by the conformity with the EC-machine guidelines and all further relevant guidelines and standards. We are authorized to attach the CE-sign to our testing machines and to issue the declaration of conformity.

Calibration

Increasing quality consciousness results also in increasing demands on accuracy and comparability of the measuring means.

Zwick and Toni Technik each have a calibration laboratory which is accredited by the German calibration service (DKD).

Thus, we are authorized to check materials testing machines at the place of installation and to issue DKD-calibration certificates. Similar calibration accreditations exist in many other countries.

Environmental protection and occupational safety

Our proven Quality Management System has been further developed to an integrated quality and environmental management system. This enhancement enables the requirements of the domains quality, environmental protection and occupational safety to be regarded as a single uniform structure. Zwick in Ulm has itself been granted certification to ISO 14001 on the basis of this enhancement.



Material Testing in Theory and Practice

Engineering Consulting Services



Changing specifications, new test requirements, or the installation or modification of a test lab can be optimized by consulting experts.

Demonstration



In order to help facilitate this decision, Zwick maintains a fully-equipped Applications Lab to perform trial tests to ensure the selection of the appropriate equipment and accessories.

Pre-Testing



In the course of new, modified, or very complex applications, it is necessary to perform specific tests prior to purchasing or expanding a test system.

Contract Testing



Whether for new test requirements or tests performed to particular technical specifications, the Zwick Contract Lab provides timely and accurate test results on a contract basis.

Application Technology Seminars



Active collaboration with partners from research and technology qualifies us to impart knowledge in principles of materials testing and expertise within Application Technology Seminars.

Commissioning - Modular and practice oriented

Preliminary Acceptance



Prior to delivery of your machine, you have the opportunity to conduct a preliminary acceptance checkout at our facility.

Transport



Upon request, and where applicable, within the scope of initial operation, ZwickService will monitor the complete transport.

Retrofit



Converting the old into new — ZwickService specialists professionally perform the upgrade of your existing materials testing machine, regardless of the original manufacturer.

Installation



ZwickService ensures the optimal installation of your testing machine and accessories based on the experience from several thousand installations.

Hardware Overview



The on-site commissioning is performed systematically and professionally on a checklist basis, and ensures an optimal utilization of the test hardware.

Software Overview



The introduction is performed following a checklist procedure, using a specific example from the operator's daily practice.

**Maintaining value
at a high level**

ZwickService Services

Service



Servicing Professional servicing of your testing machine by the original equipment manufacturer extends its' operating life and ensures consistent test-data accuracy.

Machine Relocation



ZwickService provides for the complete relocation of your testing machine as needed. The machine will be ready for testing at its new location on schedule.

Software Adaptation



Our software engineers have the solid technical expertise from years of experience to quickly deliver programming tailored to your individual needs.

Product Training



Zwick maintains a staff of qualified and expert trainers, who conduct standard and customized product training courses.

Customer Support



Should any unforeseen malfunction occur with the machine's hardware or software, our competent experts at our Hotline will be happy to assist you.

Support Desk



Our Support Desk assists you in questions regarding the operation of hardware and software or offers further technical support.

Rentals



Whether for temporary testing requirements or to satisfy a shortterm need, ZwickService provides the rental of testing grips.

Maintenance



Upon request, ZwickService performs the regularly-required maintenance of machine and accessories and monitors the maintenance intervals.

Inspection



ZwickService helps reduce downtime significantly by regularly inspecting your test system. The inspection plan documents the condition of the machine.

Repair Work



Should a failure in your materials testing machine occur one of the many technicians of the ZwickService network is available on short notice.

Calibration



ZwickService calibrates testing machines and systems compliant to national and international standards, such as ISO and ASTM.

Service

Almost a third of our employees are dedicated to service-related activities around the world. Our extensive service network accompanies your testing machine over its entire lifetime: from the preliminary consultation through initial start up to the comprehensive number of services that help to maintain the value of your testing system.



Large-size test portal for building components and component parts

Automatic "Polar" test system for metals

Static test

Universal- and special testing machines in different versions and test load ranges for static and quasi-static stress in tensile, compression and bending tests etc. These tests ensure that materials and component parts can withstand static stresses in practical operation.



*Allround Line
Pedestal Testing Machine and
Platform Testing Machine*



*ProLine
Component Testing*



*Texture and Packaging
Testing with a zwicki*

Dynamic test

Testing machines for the cyclic or impact-type dynamic stress on specimens, component parts and functional units up to complete vehicles. They ensure that even frequent and quickly changing mechanical stresses do not lead to a premature material fatigue or break.



*Amsler HB 250
Servohydraulic Testing Machine*

*Amsler high-frequency
pulsator - table-top model*



*Amsler HA 100
Servohydraulic Testing Machine*



*Amsler HC 10
Servohydraulic Testing Machine*



*Amsler HTM 2012
High-Speed Testing Machine*



*RKP 450
Pendulum Impact Tester*

Hardness test

Choose from an extensive portfolio of hardness testers from portable miniature systems to innovative hardness testing systems for testing the hardness of high-strength steels, plastics, or even special materials such as ceramics, glass, and rubber. Our program provides information on material properties such as surface quality, elasticity, strength, creep, and friction or wear of these materials.



Zwick / ZHV1 MikroVickers Fully Automatic Hardness Testers

Zwick / ZHU0.2/Z2.5 The most universal hardness tester



Testing of building materials

Machines for compression and bending tests on building materials such as mortar, concrete and the parts manufactured out of them such as bricks or concrete girders. They protect the function of buildings such as houses or halls, of traffic routes such as roads, bridges or tunnels and infrastructural facilities such as sewage plants etc.

ToniTROL measurement- and control unit for Toni Technik testing machines



Compression test machine for the testing of building materials, controlled via testXpert® with a vertically adjustable crosshead

Upgrading

Electro-mechanical and hydraulic materials testing machines of any type of construction and from all manufacturers can be brought to state-of-the-art condition with fully-developed upgrading packages. This includes also the spare parts supply for upgraded components, accessories and test software.

Zwick materials testing machine 1474, upgraded with testControl



Specimen preparation

Devices and units for the efficient production and preparation of specimens that are regarded as representative for the material to be tested e.g. the specimens are cut out, blanked, milled or ground.

Strong partners
offer a first-class
product portfolio



Zwick GmbH & Co. KG

Center for static and dynamic materials testing

- Material testing machines in standard designs for tensile, pressure, and flexure testing of material samples, parts and components
- Material test machines in special designs for specific task areas
- Automatic testing systems for material testing machines and equipment
- Hardness testers and machines (PC variants, classical process)
- Pendulum impact testers, impact fin instrumented with load cell
- Drop impact testers
- Extrusion plastometers
- Vibrophores
- Pedestal test machines for fatigue testing
- Sheet metal convertibility testing machines
- Servohydraulic testing machines
- Hydraulic high-speed testing machines
- Modernization and retrofitting of testing machines
- Maintenance and calibration service

Toni Technik GmbH

Center for professional building material test systems

- Servohydraulic compression- and bend test machines
- Automated specimen preparation devices and units
- Devices for the manual and automatic acquisition of specimen characteristics (Vicat specimens, determination of the Blaine value)
- Global Product Testing Catalog for building material tests
- Complete test laboratories incl. planning and layout
- Modernization and upgrading of testing machines
- Maintenance and calibration


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