



**SCHÜTZ
+LICHT**

Material Testing Equipment

Sales, Service and DAkkS - calibration



our company, our partner

The company was founded in 1970 by Mr. Klaus Schütz on the idea to provide the industry with first class equipment for testing requirements. In the beginning the focus was on specimen preparation for sheet metals tensile specimens. Based on the success this success our portfolio we expanded our portfolio for sales of used testing equipment, modernization and service on this. In 1996 we achieved as the second in independent company an accreditation for testing equipment according ISO17025 as DKD - calibration lab. (Today DAkkS). Throughout the company's history, the product portfolio was expanded to more and more to new machines:

- 2004 **GALDABINI** Universal Testing machine & impact testers
- 2006 **INNOVATEST** Hardness Testing Machines
- 2007 **METKON** Metallographic Preparation Systems
- 2013 **ZEISS** Microscopes - Leading brand

With this product range we improved to a comprehensive supplier and are able to offer the most complete range of destructive testing requirements
- unique in the German testing -



SCHÜTZ + LICHT - Langenfeld / Rheinland

Fundamental Values



40 year Testing Equipment - a good start

Our customers know - You can rely on us. Because we are living the philosophy: The reliability and accuracy of our services and testing equipment are part of your quality. Through our high level of technology and services, we ensure that your expectations are met at a reliable partner

... since 1970.

Focus on customers' requirements

How do we meet your needs and requirements?

By providing the best expertise, many years of experience and excellent service.

We offer the highest quality products, innovative technologies, expert support and superb service.

With more than 40 years of experience in materials testing you find equipment supplied by SCHÜTZ + LICHT in almost all sectors of industry:

Plastic industry, metal industry, manufacturer of compounds, rubber and elastomer industry, component industry, textile industry, aircraft and aerospace industry, in the wide field of automotive and also in Biomedicine. In the sheet metal industry, our delivery list is complete and includes all large and many small companies: ThyssenKrupp, ArcelorMittal, Salzgitter, Magna, BMW, Fiat, Volkswagen, Johnson Controls and much more

In Germany, we place ourselves with excellent products of our supplier - especially because we are well known by our solid and reliable support.



DAkkS - calibration and customer service

Each year we calibrate > 4.000 ...

- Universal Testing machine for tensile / compression / alignment
- Extensometers
- Hardness testers Vickers, Brinell or Rockwell
- Impact testers

Already in 1996 our company was accredited according ISO17025 by the Physikalisch Technische Bundesanstalt, as an "official" calibration laboratory for material testing equipment.



Due to excellent technical equipment we are able to calibrate within the smallest possible measurement uncertainties available through the norms for on-site calibrations.



Universal Testing Machines

The QUASAR series offers a wide range of electro-mechanical universal testing machines. They are suitable for uniaxial unidirectional and bidirectional tests: tensile, compression, flexure and cyclic test - load duration (creep) and “all” testing methods according international norms or customized methods.

The **QUASAR** - series as overview

Single column table top machine for low forces

- capacity up to 2,5 kN
- compact dimensions, high performance
- typical used for testing of micro-electronics, thin wires, small component, textile, plastic, rubber, spring testing and much more

Two column table top machines for medium forces

- capacity 5 up to 100 kN
- versatile for many requirements
- for use in automotive, aerospace, steel industry and all other fields for testing at room temperature or high temperature / climatic chamber for testing metals, plastics, wood, compounds, technical textile, CFK, GFK and much more

Two column floor standing machine for high forces

- capacity 200 up to 2000 kN
- stiff, heavy load frames for highest testing forces
- for testing metals, screws, compounds and all applications in all ranges of industry / high forces



Applications

Our universal testing machines are capable for a wide range of customized solutions for specific applications according to norms or customer specific



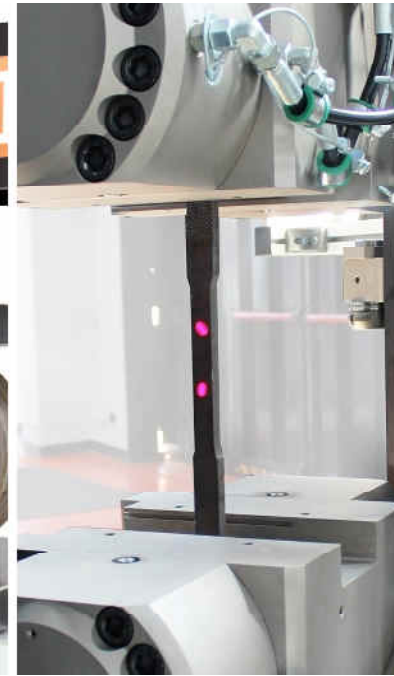
Spring testing



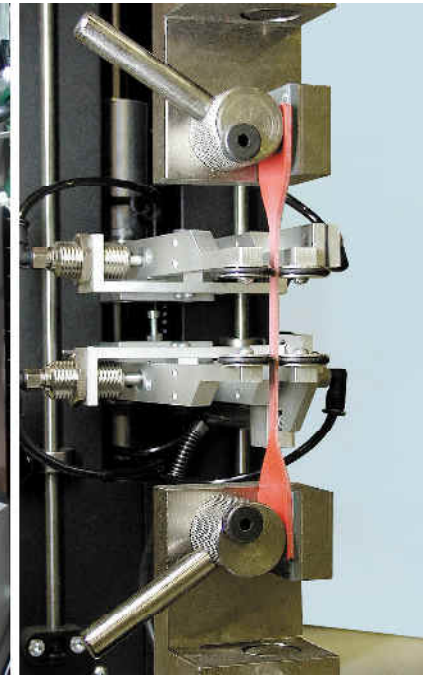
Tensile test thermo chamber



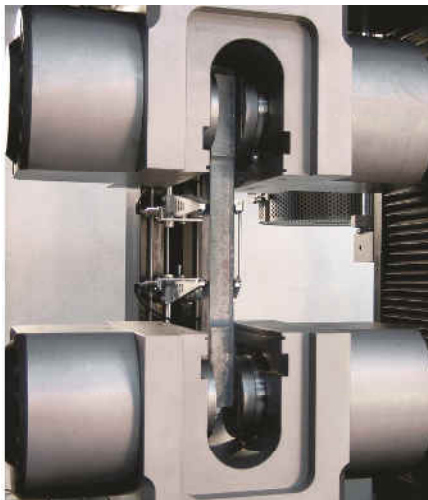
Tube compression test



Laser-extensometer



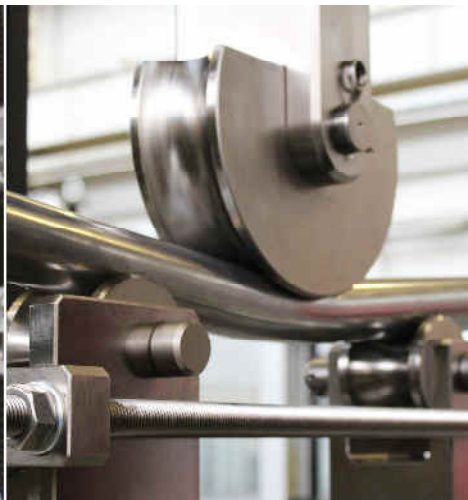
Plastic tensile test



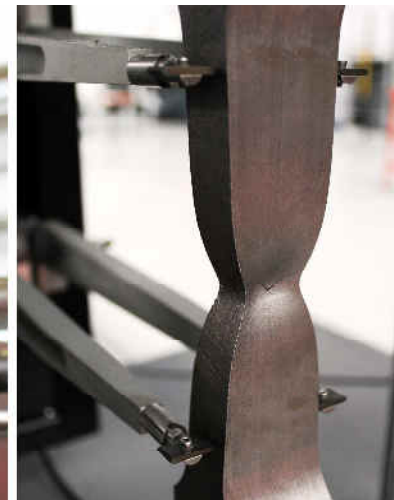
heavy load tensile test



R+N-evaluation



Tube flexure test



Heavy metal tensile



optical extensometer

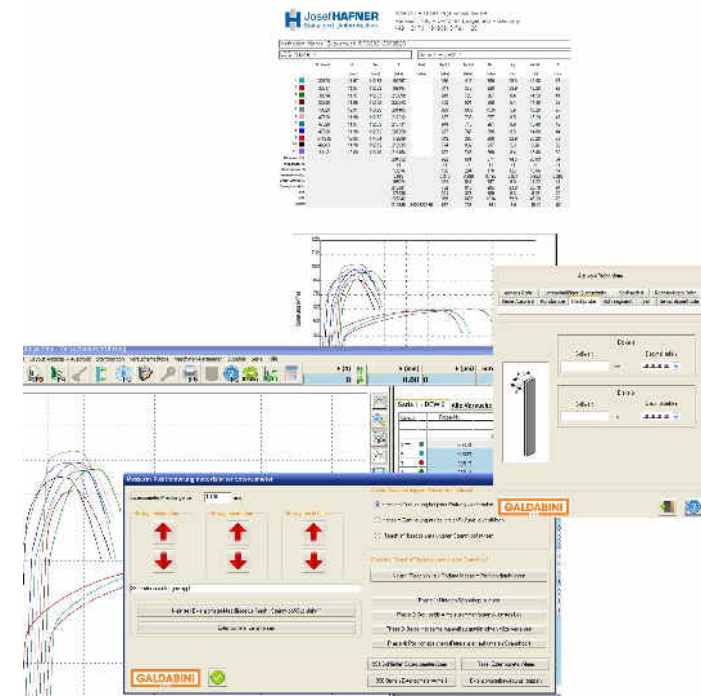
Software

exceeded your expectations

The user-friendly software and the clear user interface allows easy configuration of test methods. This software does not require a software “programmer” - after 10 minutes you will perform your own tests.

GRAPHWORK is a **complete** software package for “all” applications and norms. Additional modules (tensile, compression, metal, plastic, ...) are already integrated: You don’t have to purchase separately. Regularly customer suggestions, experience from industry and our technicians or agents will be implemented to improve our software.

GRAPHWORK includes a library of hundreds of pre-testing methods and results. You yourself can easily configure individual test methods, for example by using the interactive help (wizard).



The results of the tests can be saved in a personalized form, analysed, printed or exported. Through easy online remote support software (Teamviewer) we can help you quickly and easily at any time. Through this program, we will have access to your machine (by internet) and can answer most questions and solve problems on-line.

Universal-Hardness testing machines

VICKERS | BRINELL | ROCKWELL

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Universal-Hardness-Testers

Vickers | Brinell | Rockwell

Testing forces 1 - 250 | 3 - 750 | 10 - 3.000 kgf

This high quality hardness testers supports (until now) not known comfort in use and contains highest quality technique: Turret for 3 indenters and 3 optics, load cell, CCD-camera, comfortable WINDOWS testing software.



Revolver head 8000 / 9000 / 9500



touch screen - operation

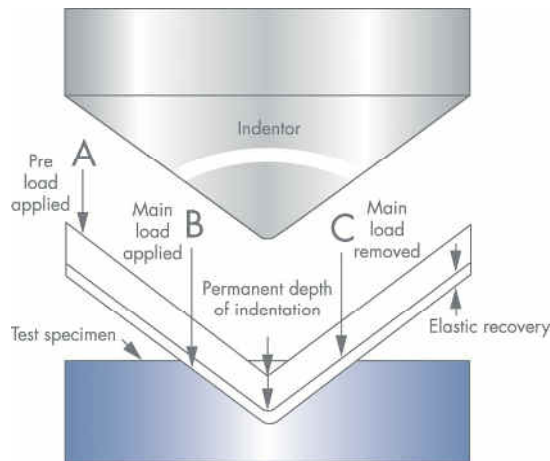
In this range INNOVATEST is the REFERENCE: Fully equipped unbeatable in price

ROCKWELL- Hardness testing machines

INNOVATEST Rockwell-hardness tester meet and exceed all international norms of hardness testing.

The inexpensive hardness testers of 600 series are equipped with a weight loading system.

All other machines are equipped with a load cell and European electronic. In addition to the equipment shown here other variants are available



VERZUS 750RS



610RS



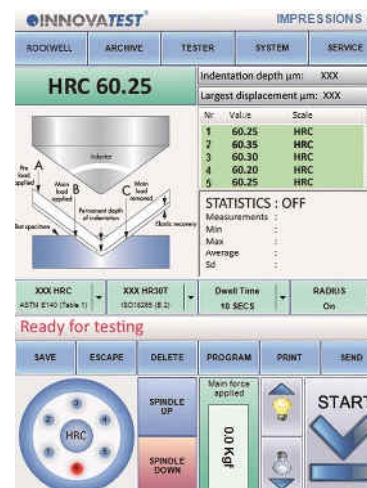
NEMESIS 9000RS



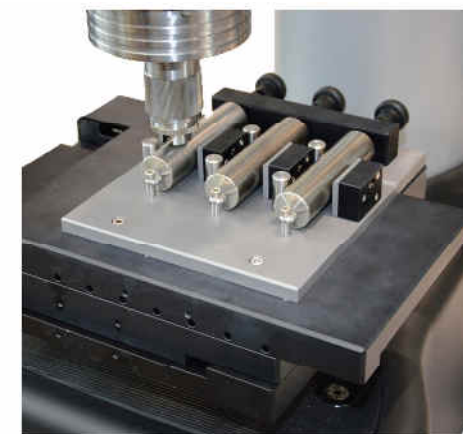
600A dead weight



600MA dead weight motorized



Rockwell software -different than other



example with round specimen
Jominy-automatic

VICKERS- Hardness tester

INNOVATEST Vickers-hardness testers are

- in combination with our own camera measuring system - the ideal equipment to simplify your testing tasks. The NEXUS hardness tester series NOVA can be equipped to a fully automated version.

We are proud of our **Camera-Measuring-System** because we often receive a feedback: "The use of this automation is simpler than the well-known brands / competitors". With an overview camera you easily can set a start point and hardness course on CHD or welding - positioning now is only a mouse click within seconds ...



NOVA - Vickers HV0.02 - HV30 - full automatic CMS 4

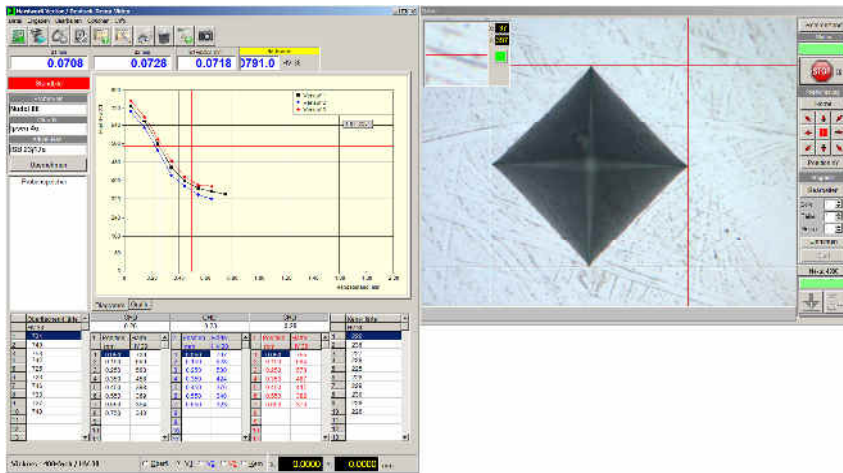


Micro-Vickers

NOVA 130 HV0,01 - HV1
Stand-alone-machine (no PC)



FALCON 500 reference class
Vickers HV0,001 - HB62,5



HardworX-Vector: automatic hardness testing image analyses

The Camera-Measuring-System is **NEW: FALCON 500** established in many companies as VICKER-hardness tester for highest "mandatory equipment". So this system requirements. At this level of quality is at almost all locations of SCHAEFFLER no other machine can beat the (43 systems), the first choice when a performance and numbers of device is upgraded features



SERVOCUT AA500 - programmable cutting machine
chop cutting, table feed cutting, pulse cutting, step / segment cutting Y/Z



Diamond cutting disc



Mounting powder

METKON metallography machines are the first choice when high-quality preparation machines are required. Until now in Germany we placed more than 500 machines in large and many small industrial companies: BOSCH, BMW, DEMAG, FAURECIA, FIAT, GKN, GRILLO, HENKEL, HONDA, SCHAEFFLER, LUFTHANSA, MERCEDES BENZ, MOTOROLA, SKF, SALZGITTER MANNESMANN, TOYOTA, TRW, TÜV, VOLKSWAGEN, WEBASTO, ZF SACHS ...

You need perfectly prepared samples and you are not willing to pay an excessive price? METKON provides high quality wet cutting machines, mounting presses, grinding + polishing machine for a fair price



Single force



Central force



ECOPRESS 200 with Siemens-controller



grinding- + polishing DIGIPREP



Manual cutting machines METACUT
METACUT M251 Ø 250 mm METACUT M351 Ø 350 mm



SPECTRAL PG
pendulum
grinding machine



SPECTRAL
250
grinding
machine



SPECTRAL
350
2-disc
grinding
machine



SPECTRAL PG
Specimen milling
machine



Grinding and polishing machines
FORCIPOL with specimen mover FORCIMAT

METKON metallography machines are well known because of their robust quality for fair price.



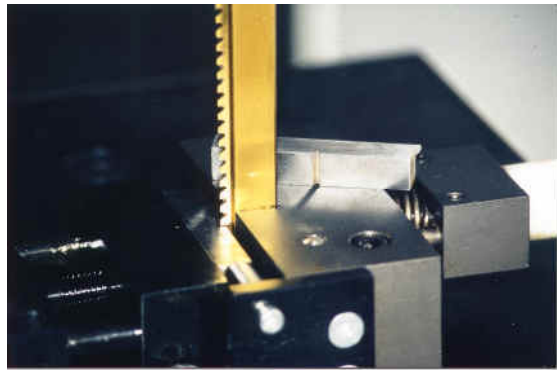
ECOPRESS 50 mounting
conventional control

IMPACT - Series

product Portfolio



The IMPACT testing machine offers a complete series of pendulum impact testing to determine the impact toughness with nominal energies of 25 | 150 | 300 | 450 | 600 and 750J for tests according to Charpy and Izod. A variety of equipment for sample preparation, sample cooling, and temperature controlled chambers instrumented knives and lots of useful accessories are available on request.



Notching machine
impact specimen



hammer head of IMPACT 300



IMPACT 750



Release of hammer at door handle



Touchscreen-user panel



Centring device

Sheet Metal Tensile Specimens

For this products we are marked leader

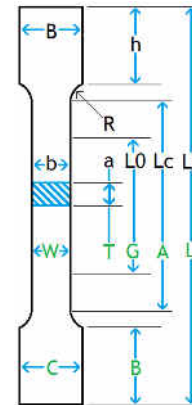
Practically in this industry there is no leading German sheet metal company that does not manufacture the tensile specimens from sheets metal plates without our machines. Almost every steel service centre and most automotive plants are equipped by us.

Unique...

Sheet metal tensile specimens of excellent quality with 3 minutes ready to test



Specimen grinding machine PSM2000



Blanking tools



Our Customers:

ThyssenKrupp ("all" steel-service-centres), ArcelorMittal, BMW, VOLKSWAGEN, FIAT, MAGNA / COSMA, KEIPER RECARO, HYDRO, "all" German cold rolling mills and further 150 companies in sheet metal industry...

Metal-, Stereo- and Zoom Microscope **ZEISS**



We make it visible.



Stereo-Microscope



microscopy

means ...

not only to magnify small things bigger. When increasing the magnification should not eliminate details of the specimen. Microscopes of **ZEISS** granting that also smallest particle will stay visible...

Business and Customer benefits

Certification

DAkKS Deutsche Akkreditierungsstelle D-K-15216-01-00

Through internal and external audits, we ensure our - and your quality

You can count on us

SCHÜTZ + LICHT are partner who is able to offer the best technology and services. We offer technical and commercial operation by using a network of highly qualified personnel who regularly takes part in trainings.

Call us

Our professional customer service is throughout the year available. A very close relationship to the customer, professionalism and excellent service are the keys to success. Whether it is technical support, calibration, repairs or upgrading a machine:

Participate *from* our experience

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