



# Hardness Testing with ZwickRoell

By Sascha Latzke and Alex Rekelkamm

# Agenda

1. **Company presentation**
2. **Classic hardness testing**
3. **Customizing**
4. **Instrumented & Nano hardness testing**
5. **Other**



Knowledge in hardness testing

# About ZwickRoell



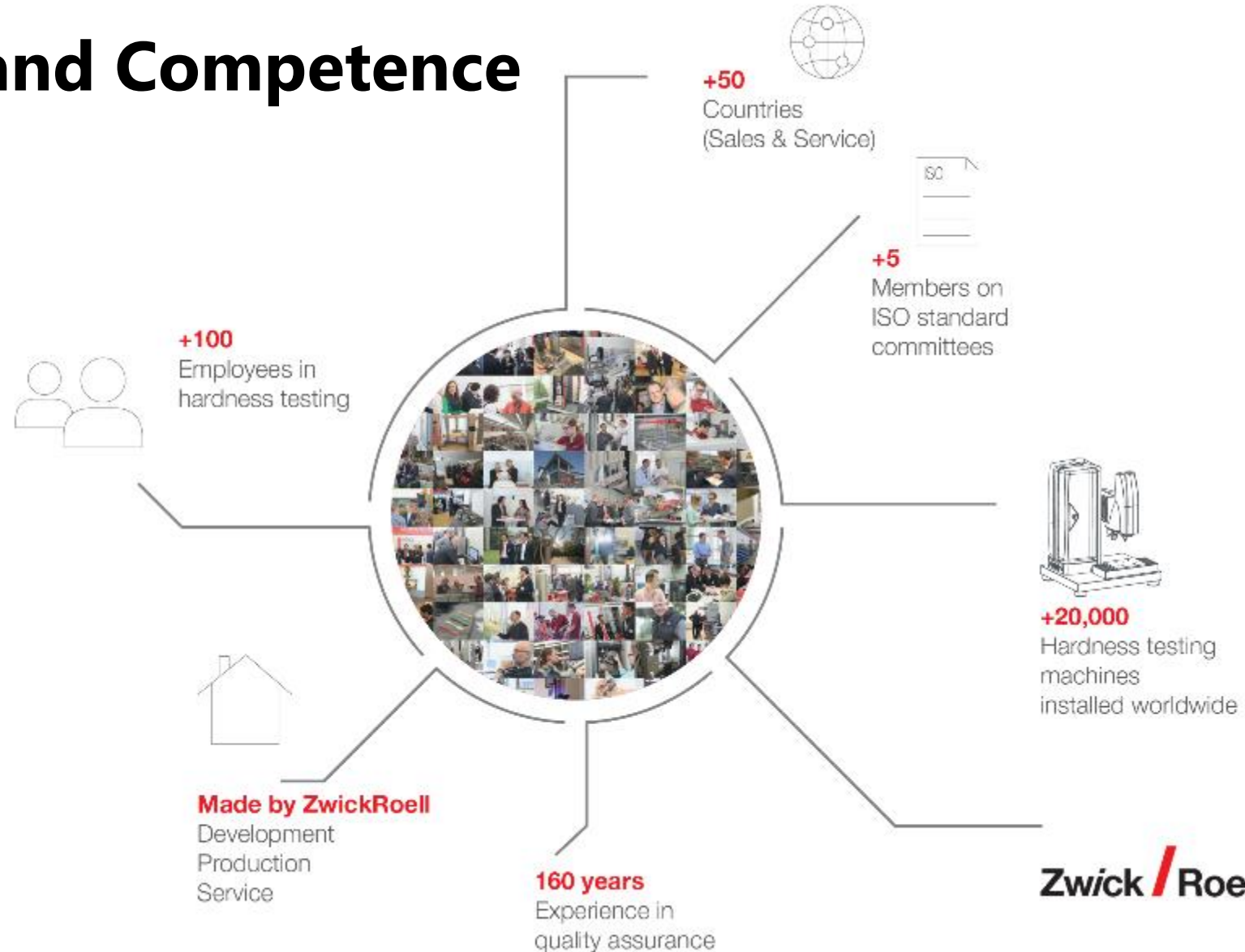
Production facility in Birmingham



Production facility in Kuchl

Worldwide – from one partner

# Experience and Competence



**Zwick / Roell**

development, production, consultation and service

# Three brands, one team


**LATZKE**



**Zwick / Roell**

**Zwick / Roell**  
EMCO-TEST

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versatile and flexible

# Rockwell Hardness tester

DuraJet



ZR up to now:



ZHR

Whats new ZHR 4150/8150:

New touch screen with an intuitive interface



N4



N6



N7

# Rockwell Hardness tester

DuraJet



## Advantages:

- Suitable for large and heavy parts
- Integrated clamping function
- Automation possible
- interface

ZHR



## Advantages:

- „nose factor“ for perfect accessibility to difficult test areas (e.g. in tubes)
- Wide variety of toolings
- Manual spindle for fast specimen movement
- testXpert-interface



Ready for production environment

# Universal hardness tester

NEW



ZR up to now:



The perfect instrument for your lab

# Low-load and Microhardness tester

NEW



DuraScan 10 G5



DuraScan 20 G5



DuraScan 50/70 G5



DuraScan 80 G5

ZR up to now:



ZHV10



ZHV30/zwickiLine



ZHV30



ZHVμ

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What we already delivered – external UIs & tailored tables for customers with large parts

# Customizing Competence

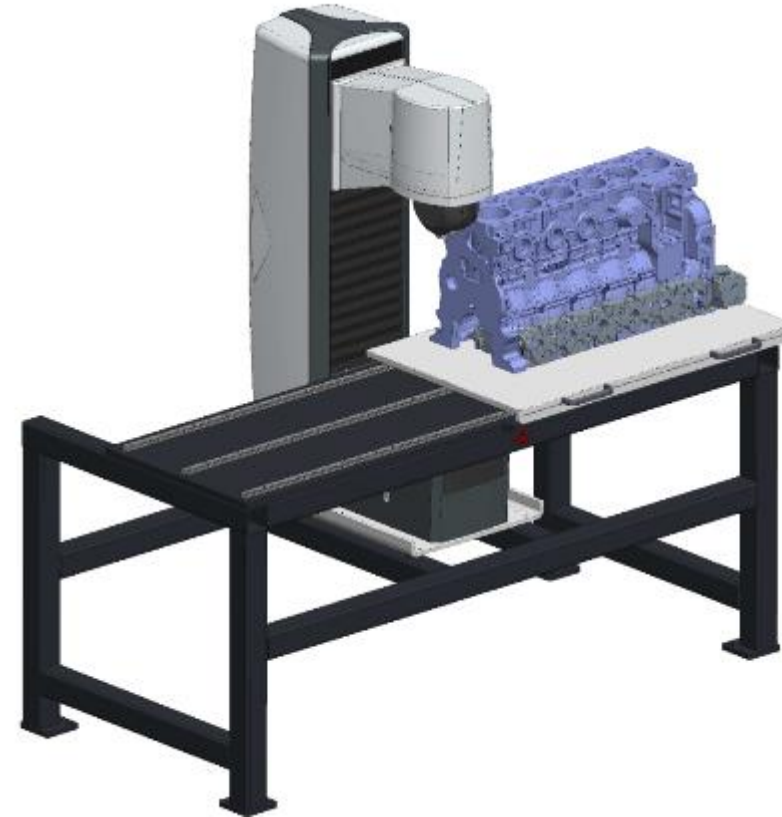


- Tailored desk
- User interface panel stand alone



What we already delivered – tailored support fixtures and sliding tables for customers with large & heavy parts

# Customizing Competence



What we already delivered – individual design of sample holders and testing solutions for irregular shaped parts

# Customizing Competence






# Automation

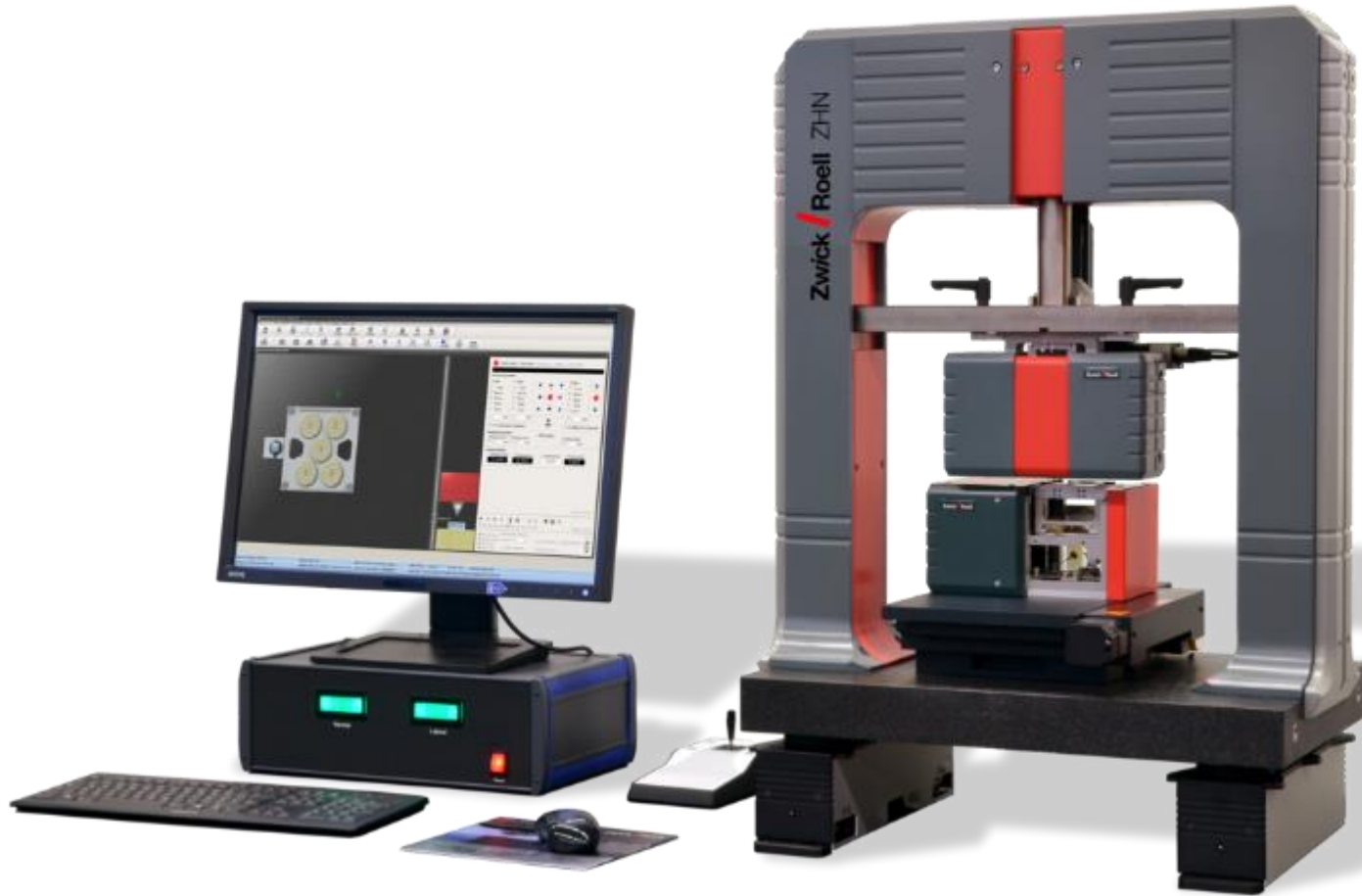
- Together with ZwickRoell, we automate the entire hardness testing process for our customers - including specimen handling.

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# Universal hardness tester



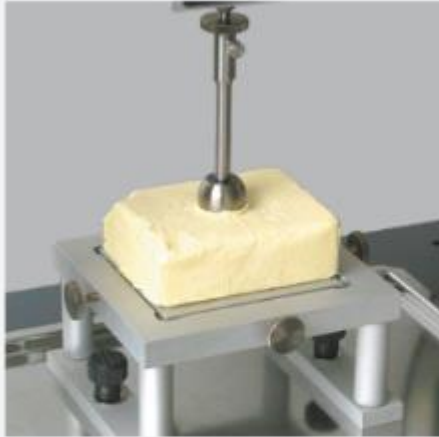
## Applications

- Hardness testing to ISO 14577
- Scratch tests
- Wear tests
- Dynamic tests
- Profilometer

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# Portable hardness tester



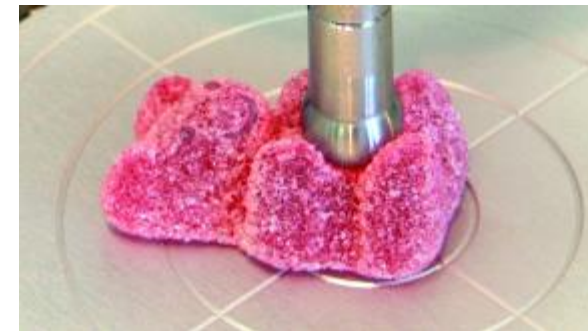
**Eindringstempel zur Bestimmung der Härte von Lebensmitteln**

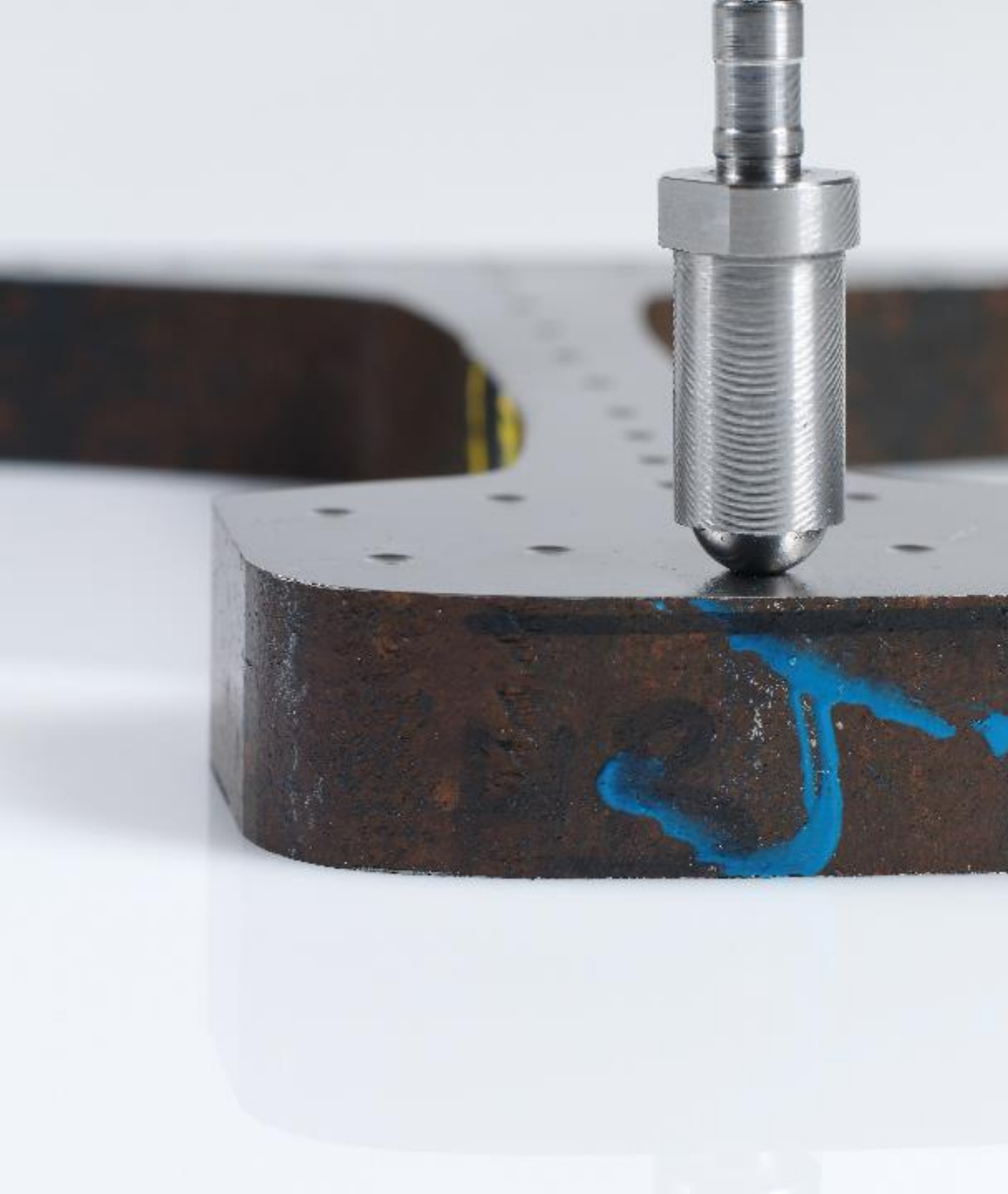
Diese Stempel werden meist für Eindringversuche eingesetzt, um die Härte von Lebensmitteln zu bestimmen. Diese Prüfungen sind verbreitet und finden bei vielen...



**Spezial-Stempel: Festigkeit von Brot nach AACC, Bloom-Härte**

Die Prüfung der Festigkeit von Brot nach AACC74-09 ist ein Eindringtest mit zwei Zyklen, bei dem ein zylindrischer Stempel definierte Brotscheiben auf 40%...





Together, in the ZwickRoell family

**We offer the best solution  
for you**



**Zwick / Roell**

[zwickroell.com](http://zwickroell.com)