

# UTİS 2017

**HAIMER –  
Quality „100 % made in Germany“**

**Mehmet Yıldırımkaraman**  
**Haimer Turkey – General Manager**

**40** Years

**HAIMER**  
Quality

# For 40 Years Quality made by HAIMER

**HAIMER.**  
Quality Wins.

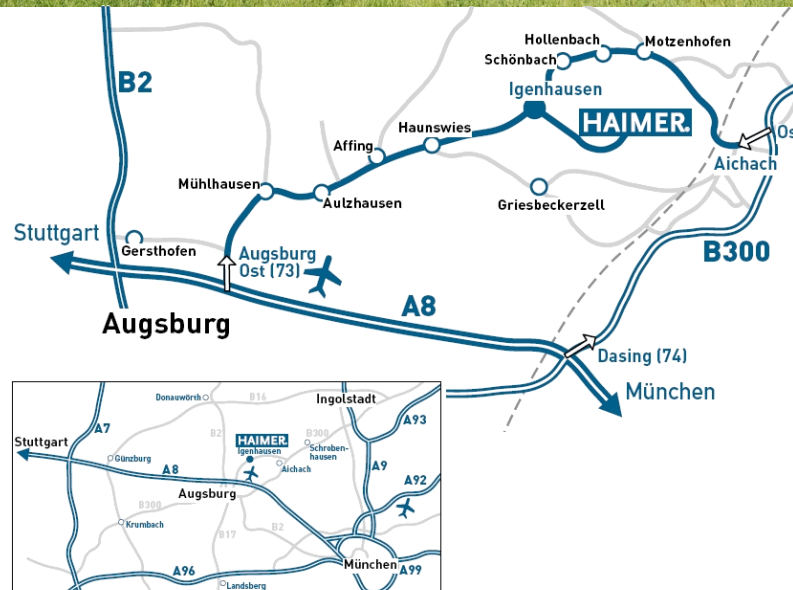


**40** Years

**HAIMER**  
Quality

# HAIMER - Headquarters Igenhausen

**HAIMER.**  
Quality Wins.





# HAIMER at a glance

- Foundation in 1977 by Claudia and Franz Haimer, 100% family owned
- 700 employees worldwide / 500 in Igenhausen (more than 50 apprentices)
- European market leader in the area of tool holding
- Quality and technology leader by investing up to 8% of turnover in R&D
- Automated „State of the Art“- production with very high degree of vertical integration
- Daily production capacity of 2.000 tool holders
- 100% „made in Germany“ & „made by HAIMER“

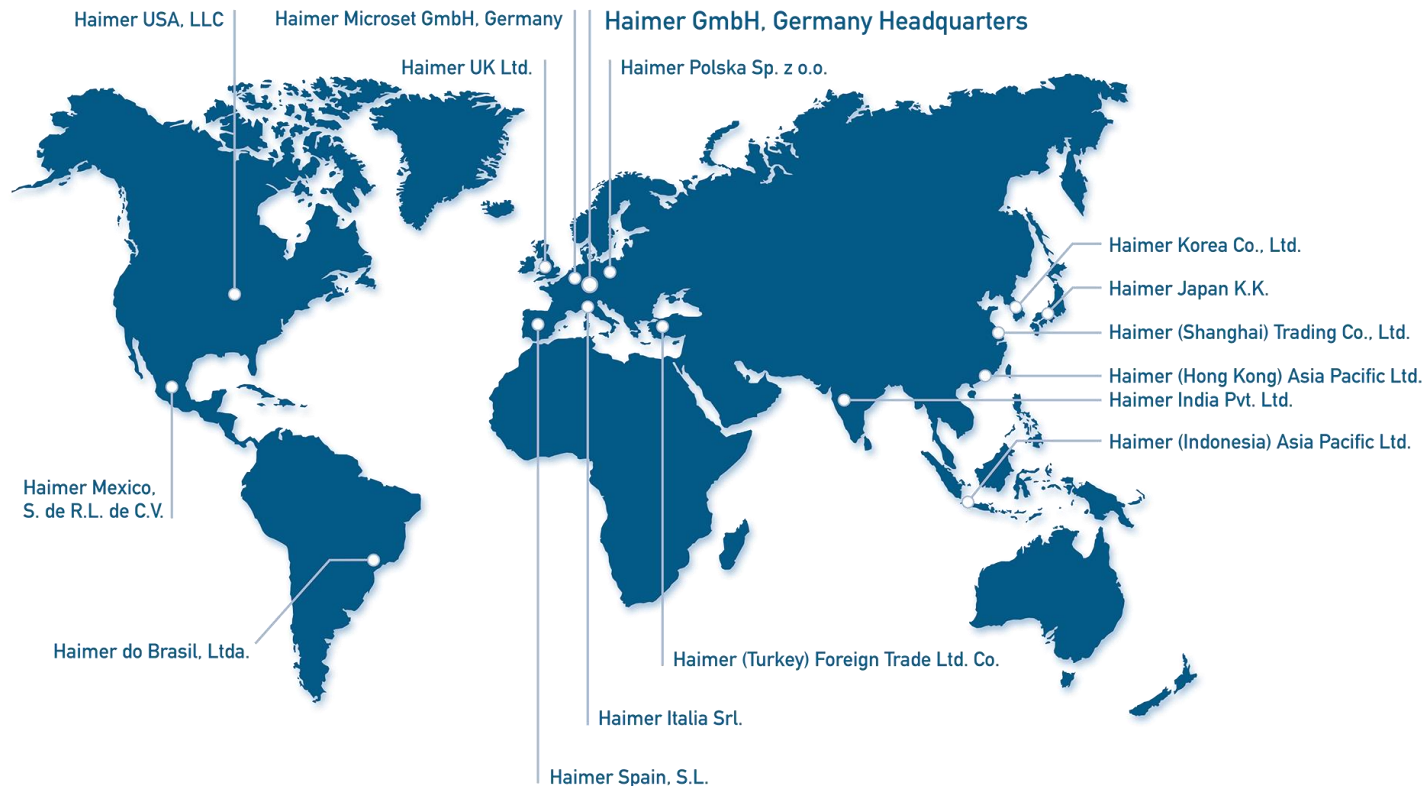


# HAIMER Apprenticeship

- More than 50 apprentices in different programs:
- 
- IT specialist for system integration (m/f)
- Industrial administrative clerk (m/f)
- Industrial mechanic (m/f)
- IT clerk (m/f)
- Marketing clerk (m/f)
- Machine and equipment operator(m/f)
- Technical product designer (m/f)
- CNC machine operator (m/f)



HAIMER apprentices



- Global presence in all major markets with subsidiaries, showrooms and warehousing
- 15 sales- and service offices, 1 technical center as well as 2 production sites ensure best support and service for our customers and partners
- Export to nearly 100 countries

# Development of HAIMER

**HAIMER  
USA**



**HAIMER  
Spain**



**HAIMER  
Shanghai**



**HAIMER  
Indonesia**



**HAIMER  
Brazil**



**HAIMER  
Italy**



**HAIMER  
UK**



**HAIMER  
Microset**



2002

2005

2007

2009

2012

2013

2014

2015

2016

2017



**HAIMER  
Asia Pacific**



**HAIMER  
India**



**HAIMER  
Korea**



**HAIMER  
Japan**



**HAIMER  
Turkey**



**HAIMER  
Mexico**



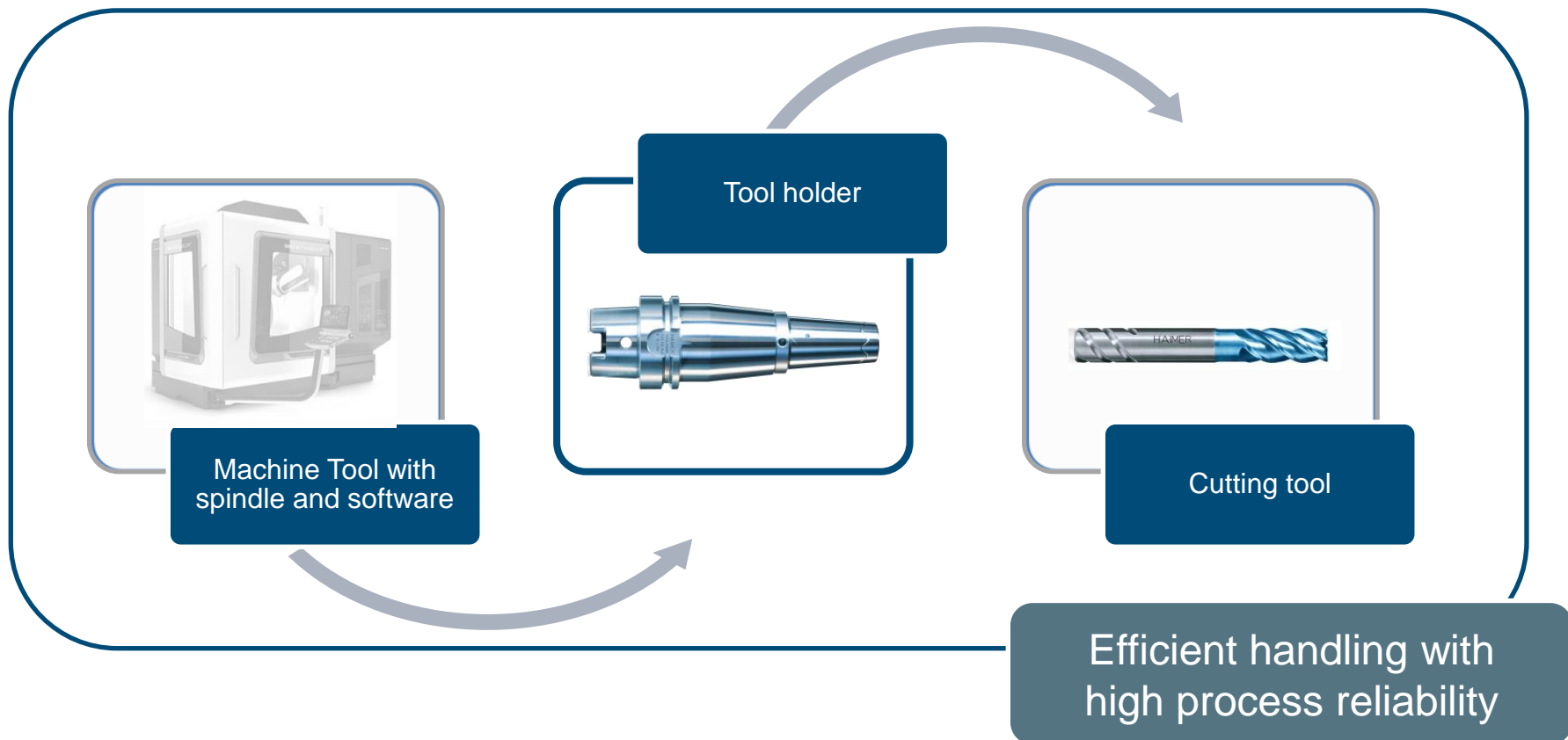
**HAIMER  
Poland**





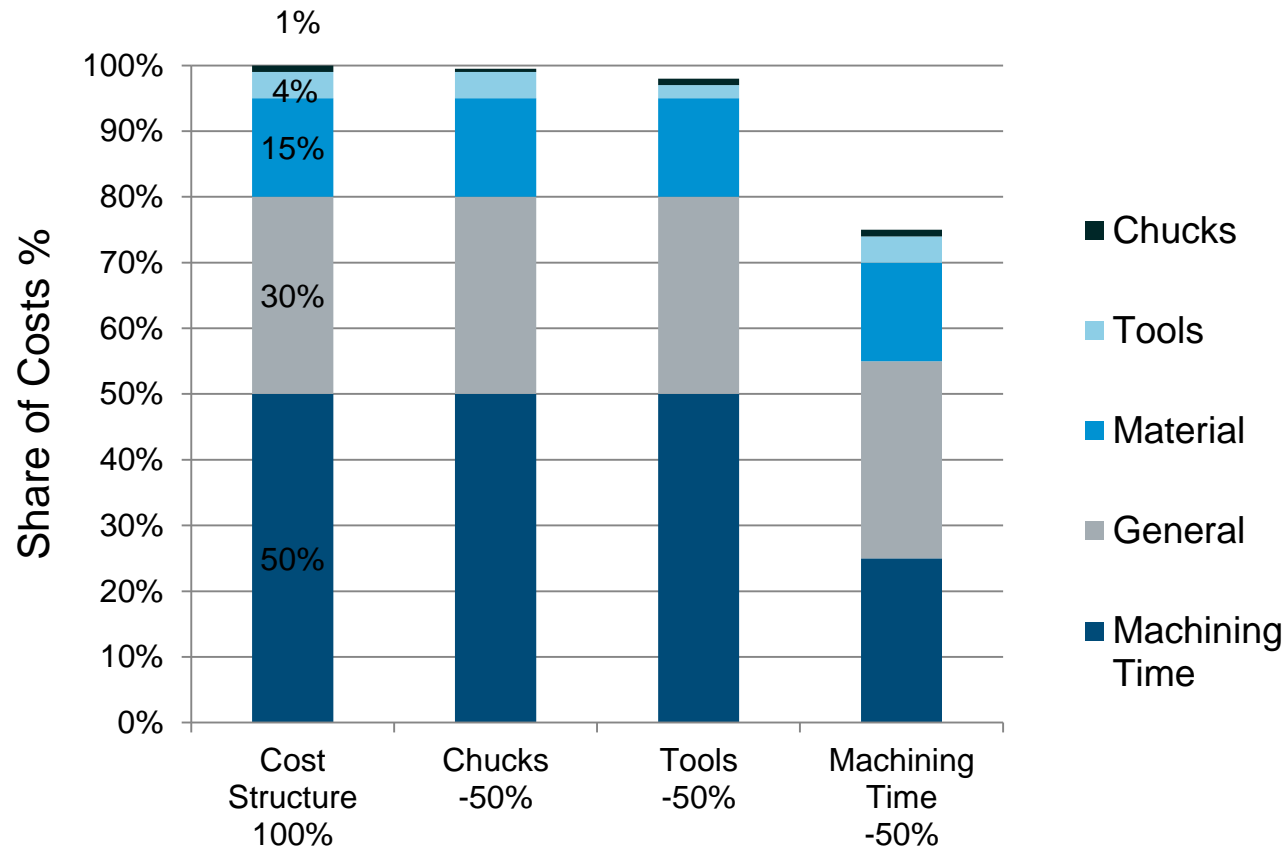
# Why high-quality tool holders?

First class machining centers require first class equipment



# Potential of savings in manufacturing

**Considerable potential of savings only in machining time**  
**Main target: shorten process time and non-productive time**



# Main criteria for quality tool holder for HSC / HPC

The main criteria for the selection of the right tool holder for HSC / HPC:

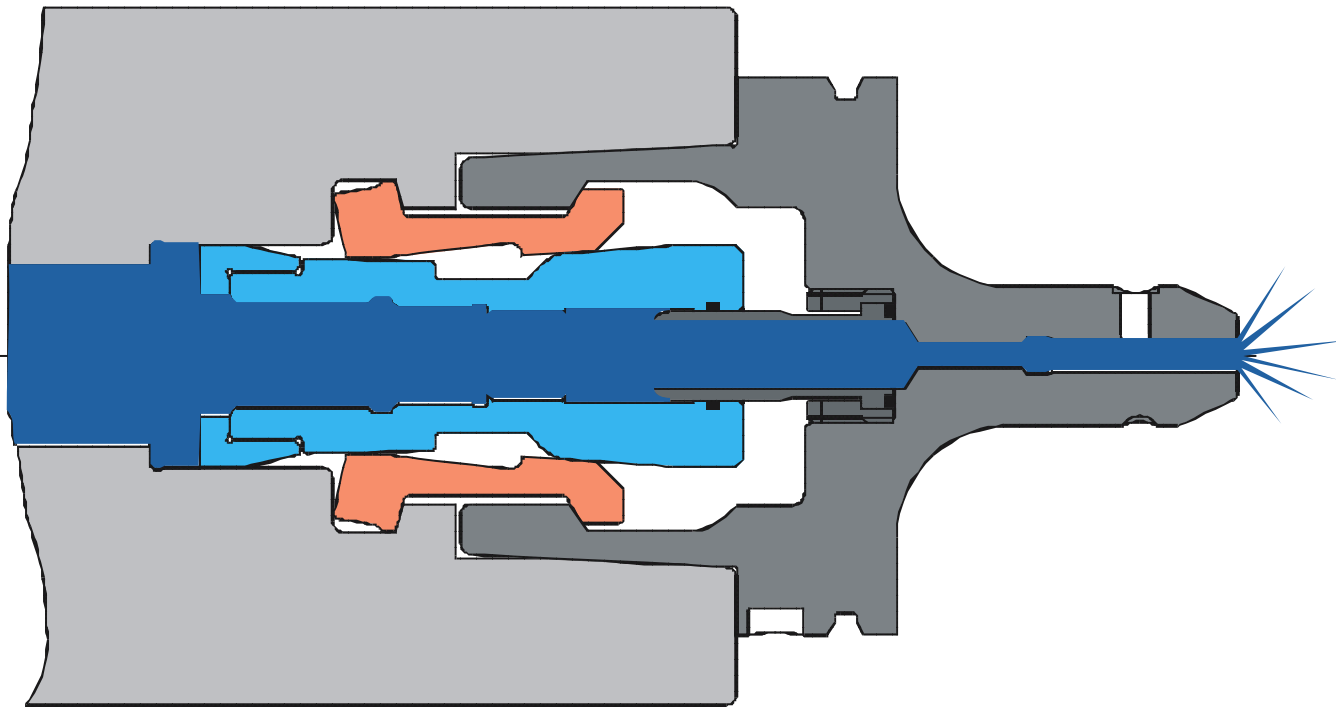
I. Rigidity & vibration damping

II. Run-out accuracy & precision

III. Balance & safety



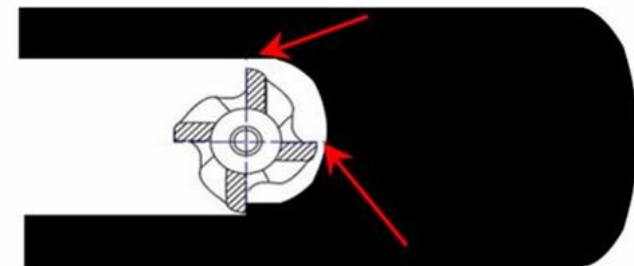
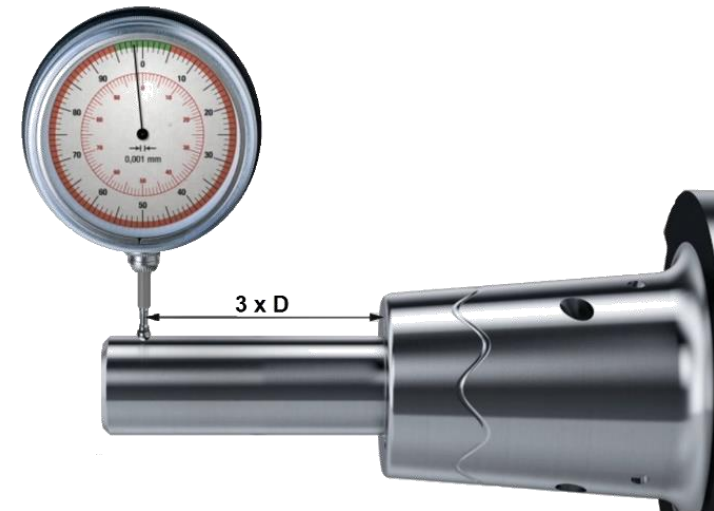
The rigidity of the toolholder starts with the spindle connection





## Equal load on all cutting edges

- No abortive wear of the tool
- Higher accuracy
- Better surface
- Higher cutting volume
- Quiet running, low vibration

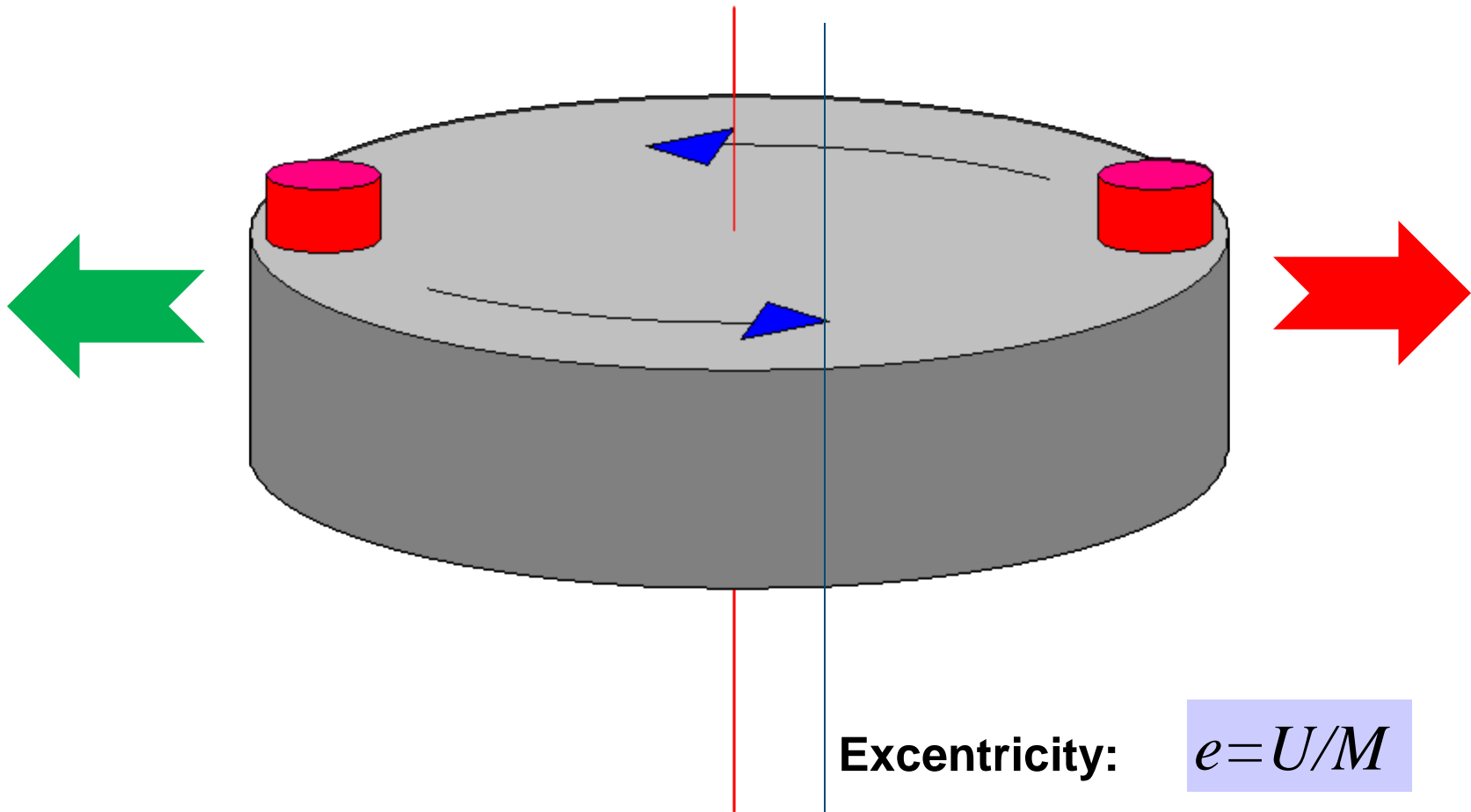


## Unbalance is expensive, even if you don't see it

- Unbalanced tool holders create centrifugal forces at high rpm
- These forces load the spindle and cause vibrations
- For that reason unbalance can damage the machine, spindle and tool
- Unbalance reduces the lifetime of the tool and spindle and decreases accuracy and surface quality
- Unbalance negatively affects run-out accuracy because of centrifugal force



## Balance - Simplified Illustration



# The Evolution of Shrink Fit Technology



**Standard**



**Power Shrink Chuck**



**Heavy Duty Chuck**



# Shrink Fit Technology HAIMER Power Clamp

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Power Clamp Nano  
Basic Line



Power Clamp Comfort NG  
Profi Line



Power Clamp Premium NG  
Premium Line

# Tool Dynamic Professional Balancing Technology

## Balancing with system!

- Tool Dynamic offers the right system for every application
- Modular system
- Upgradeability of the system



TD1002



Economic



Economic  
Plus



Comfort



Comfort  
Plus

# Applications for tool balancing

## Application areas of tool balancing

(1) PCD Monoblock tools



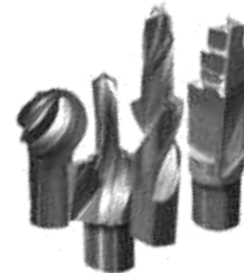
(2) PCD tools with cylindrical shank



(3) Milling heads / tools with cylindrical bore



(4) Special PCD tools



(5) Grinding wheels



# Measuring Instruments

## HAIMER 3D-Sensors

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Universal



Zero Master



3D-Sensor NG



3D-Sensor  
Digital



- Develops and fabricates innovative technologies for tool measurement and tool presetting, at its Bielefeld location.
- Successful UNO and VIO series
- Universal solutions UNO
- Premium devices with the VIO or VIO *linear*
- Combined version VIO *linear* toolshrink
- Perfect solutions for all tool sizes and machine environments
- Individual tool presetting increases the productivity of any machine tool, and also the quality and precision of the workpiece.
- This technology from DMG MORI Microset pushes your production efficiency up to a new level.



# UNO – from manual to fully automatic



**UNO 20 | 40  
smart**



**UNO 20 | 40  
premium**



**UNO 20 | 40  
autofocus**



**UNO 20 | 70  
automatic drive**

- |  |  |  |  |
|--|--|--|--|
| <ul style="list-style-type: none"><li>■ Intuitive menu navigation and control</li><li>■ Wide range of measuring functions for turning, milling and drilling tools</li><li>■ 5,7" Touch-Screen</li><li>■ HSK, VDI, Capto, BT adapters available</li><li>■ Measurement during production</li></ul> | <ul style="list-style-type: none"><li>■ Intuitive menu navigation and control</li><li>■ Wide range of measuring functions for turning, milling and drilling tools</li><li>■ Spindel SK50</li><li>■ HSK, VDI, Capto, BT adapters available</li><li>■ True running 0.002 mm</li><li>■ Repeat accuracy 0.002 mm</li></ul> | <ul style="list-style-type: none"><li>■ Automatic focusing on cutting edge to be measured</li><li>■ Very suitable for tools with several or many cutting edges on the circumference</li><li>■ Spindel ISS autofocus possible</li><li>■ Manual operation possible</li></ul> | <ul style="list-style-type: none"><li>■ Automatic positioning and focusing on cutting edges to be measured</li><li>■ Automatic measurement, even of complex tools</li><li>■ No special user knowledge required</li></ul> |
|--|--|--|--|

# VIO – from manual to fully automatic



## VIO basic

- Manual operation
- Swivelling operating panel
- High quality components
- High power software Microvision VIO



## VIO linear

- Fully automatic or manual operation
- automatic measuring cycles
- Wear- und maintenance free linear motors
- Swivelling operating panel



## VIO linear toolshrink

- Combined shrinking and presetting with high setting accuracy
- Higher operating ergonomics
- Optimal shrinking results
- More precise axis positioning through linear drives
- Automatic monitoring of shrinking parameters

## Cool Flash – The new cooling system for shrink fit chucks

- Coolant directly to the cutting edge
- Extended tool life up to 100 %
- Eliminates balls of chips on the cutting tool
- Also for high rpm
- Optimized run-out accuracy! No additional unbalance!
- No disturbing clearance!
- For tools from diam. 6 mm up to 25 mm





- Safe-Lock™ shows the innovative strength of HAIMER –Patent granted in all major markets
- HAIMER as a worldwide partner in tool holding technology for all major companies in the industry
- Following tool manufacturers / brands are licensed:

## SAFE-LOCK®



**Helical** *scissors*  
Manufacturers of High Performance  
Carbide Cutting Tools



**KENNAMETAL**



**SECO**



**Niagara Cutter**



**SUMITOMO**  
CARBIDE - CBN - DIAMOND



**SANDVIK**  
Coromant



**EMUGE**  
FRANKEN



**WALTER**



**SGS**  
Solid Carbide Tools



**DATA FLUTE**



**CSG**

**WIDIA**

# HAIMER Power Mill with Safe-lock®

**HAIMER.**  
Quality Wins.

## Characteristics:

- Safe-Lock™ shank as standard
- Shank tolerance: h5
- Unequal cutting edge and helix slitting
- Neck for higher cutting depth
- Fine-balanced
- Runout < 5µm
- Overall length (+/- 0.05 mm)
- Newest AlTiN coating

Main application area:  
steel machining



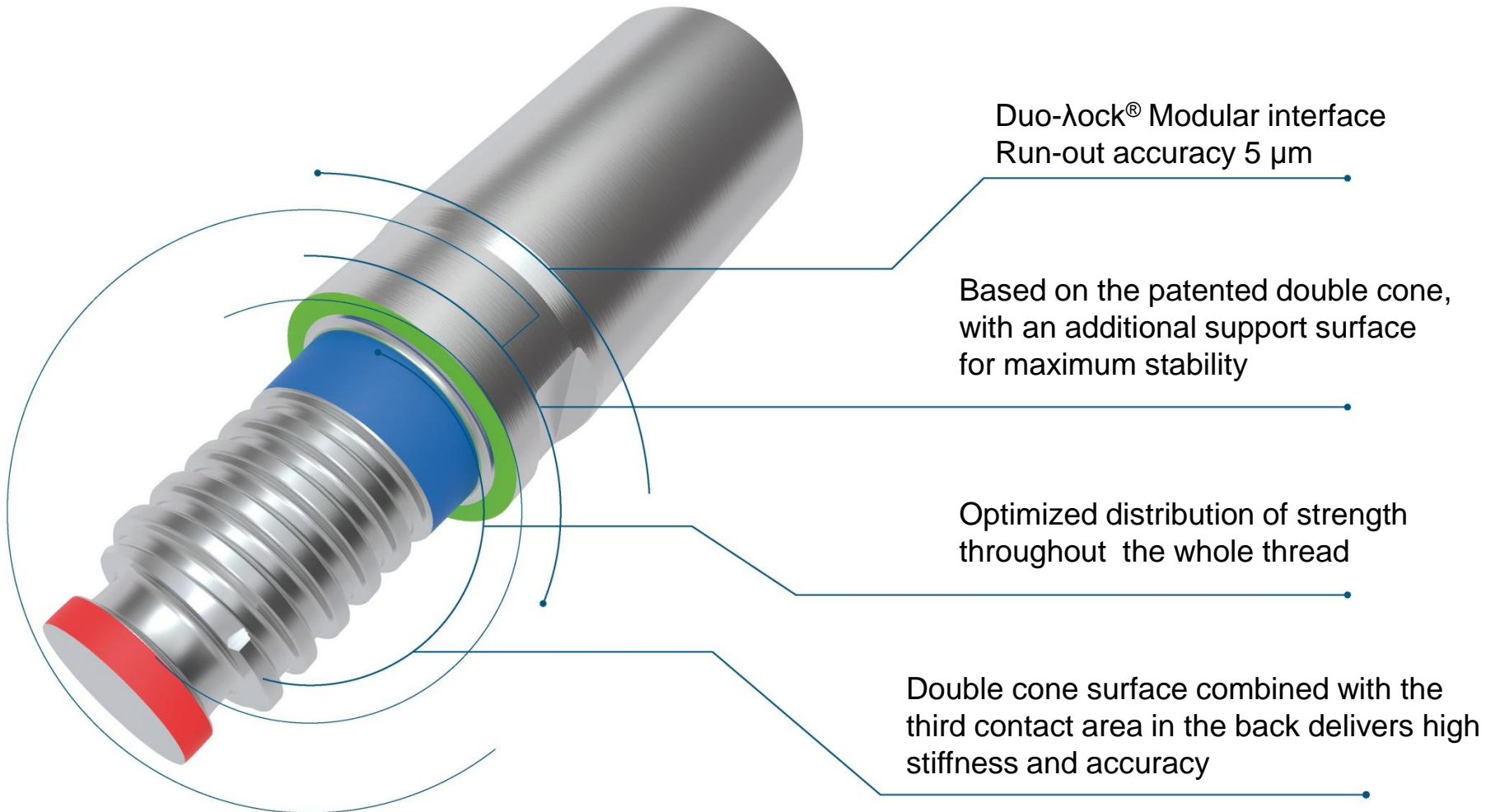
# Duo-lock®

## Interface for maximum flexibility

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Quality Wins.



# Duo-lock® Modular Interface: Characteristics and advantages



# Duo-Lock™ - next generation modular endmilling

- High rigidity
  - Roughing and finishing
- High precision
  - 5 µm running accuracy
  - 10 µm Z – precision
- Innovation
  - Different kinds of carbide
  - Variety of milling geometries
  - One interface



DUO-LOCK®  
holder



DUO-LOCK®  
extension



DUO-LOCK®  
tools



**HAIMER®**  
Quality Wins.

**Thank you for your attention!**

