

# HEIDENHAIN



## **Touch Probes for Machine Tools**

High accuracy and performance

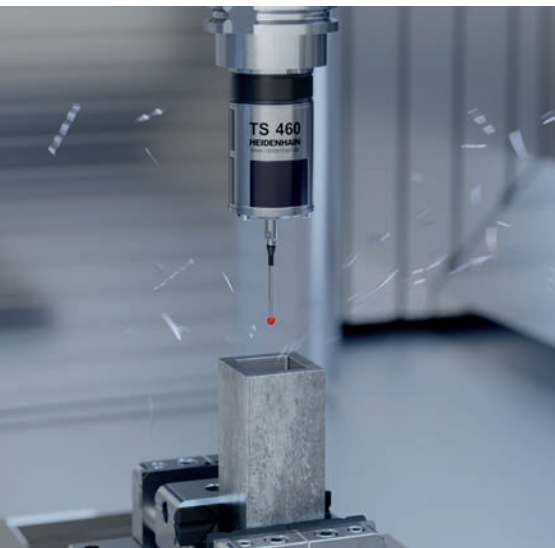
[www.heidenhain.com](http://www.heidenhain.com)

## Fully automated inspection and machining

Reliable inspection measurement is often the key to a fully automated manufacturing environment. Touch probes with integrated workpiece cleaning ensure that measured surfaces are cleared of chips. This can be achieved through internal coolant jets emitting either pressurized air or cooling lubricant.

### Your benefits

- Integrated measured-surface cleaning with pressurized air or cooling lubricant
- Elimination of measurement errors caused by chips or foreign matter
- Automated measured-surface cleaning without program interruptions
- No need for separate aids

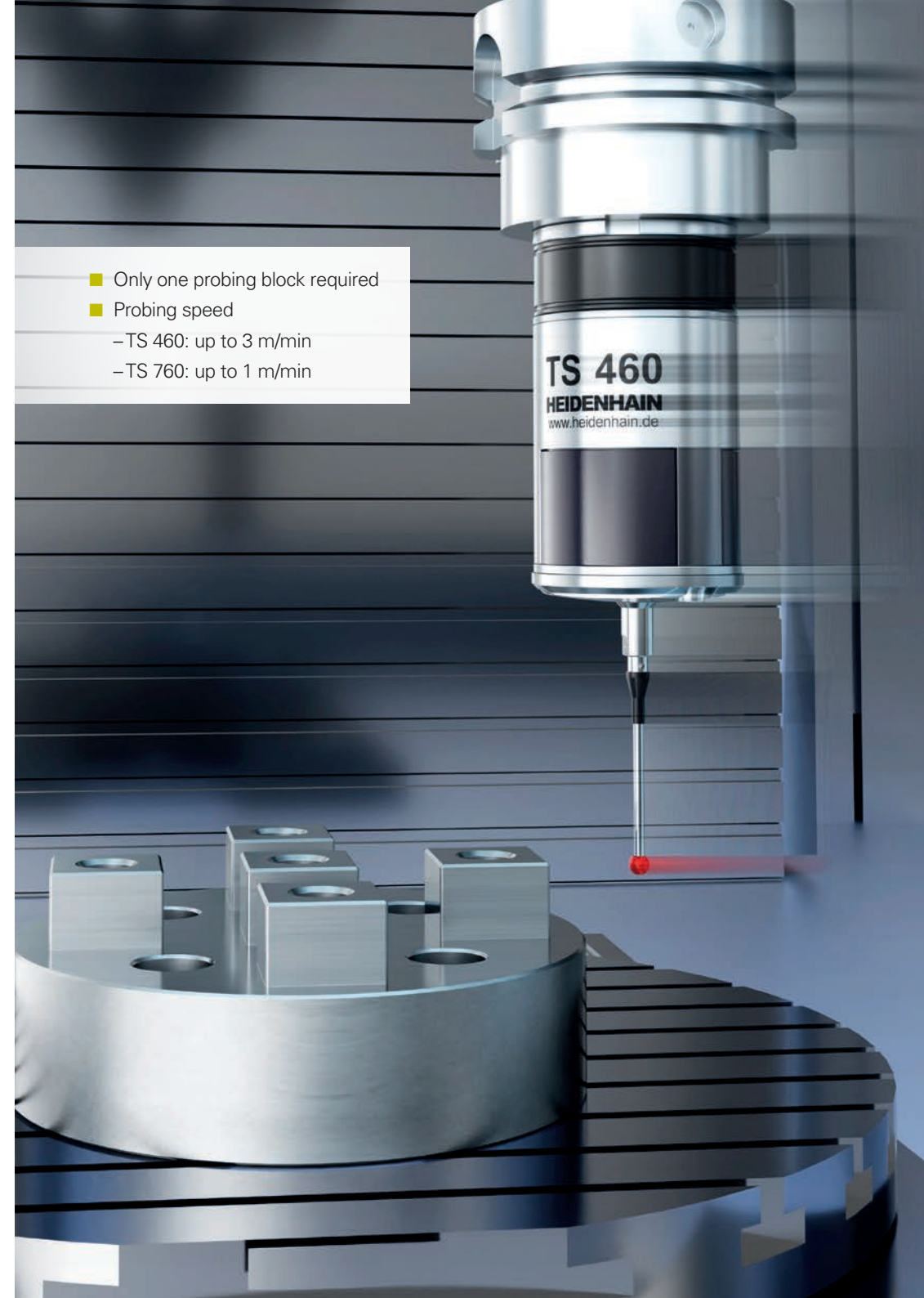
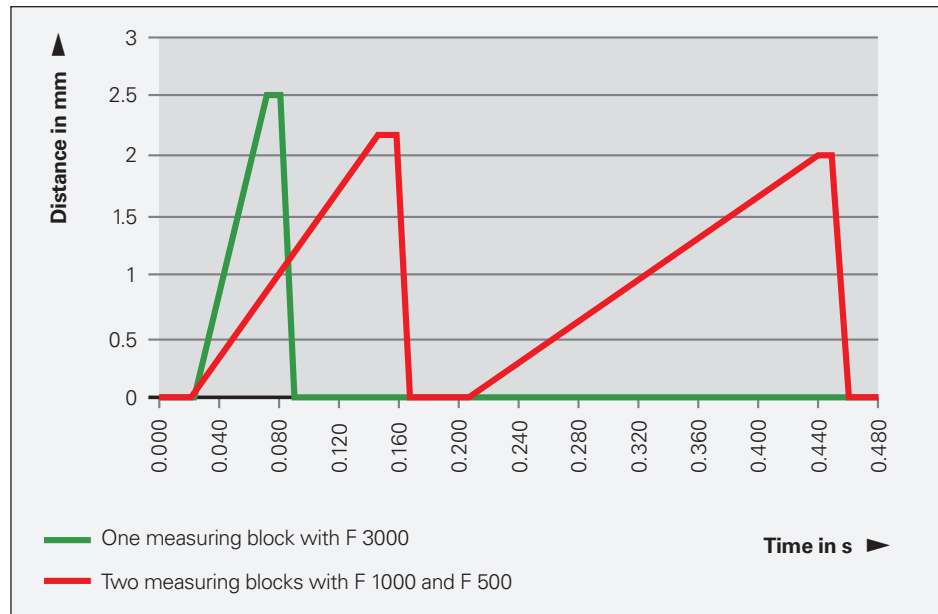


## Accelerate production processes

Thanks to their higher probing speed, touch probes from HEIDENHAIN can reduce your cycle time by up to 30% without a loss in accuracy. The time saved is usually a full second. And due to the probe's high repeatability, a single probing block is all you need in the part program. This improves overall machine performance during setup, part inspection and machine calibration (in conjunction with a calibration sphere).

### Reduce your non-productive time

- Setup and calibration in one probing block, at up to 3 m/min
- Approx. 30% faster probing cycle
- High vertical integration for our touch probes, with sensors developed in-house





## High service life: protect your capital assets

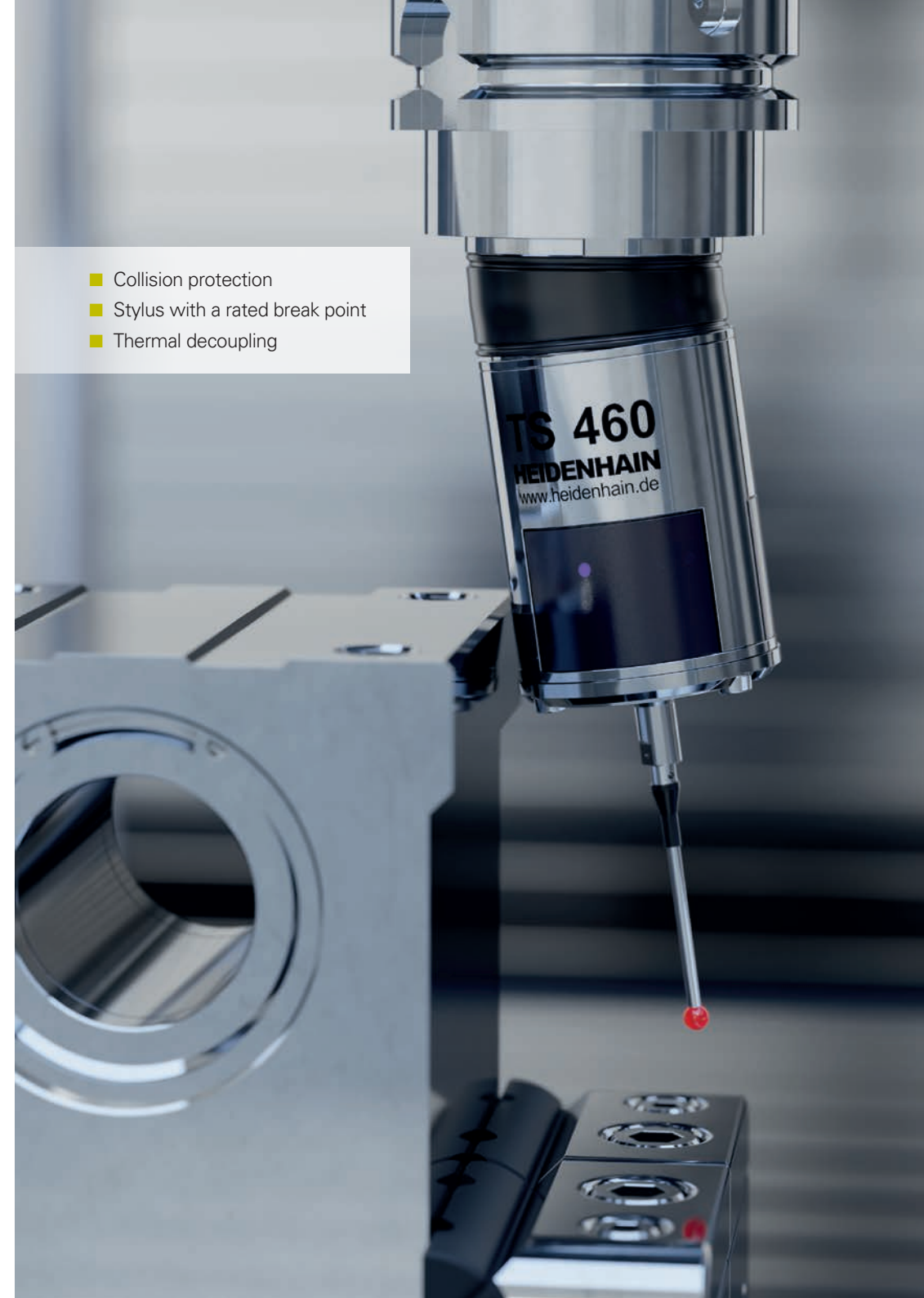
Touch probes from HEIDENHAIN feature a long deflection distance and offer additional protection through a rated break point either in the stylus or in the connecting pin to the probe contact. For enhanced collision protection of the touch probing housing, the TS 460 is available with an optional mechanical adapter between the touch probe and the taper shank. This protects the spindle during a collision in the Z direction, when the touch probe is subjected to strong forces. In this scenario, spindle protection is usually preferred, even at the expense of damaging the touch probe. The collision protection adapter also functions as a thermal decoupler, protecting the touch probe from absorbing spindle heat.

### Your benefits

- Spindle protection during collision, and thermal decoupling of the spindle
- 50 million probing cycles with no loss in accuracy
- Rapid repair and exchange device availability thanks to extensive distributor network
- Worldwide consulting and customer service



- Collision protection
- Stylus with a rated break point
- Thermal decoupling



## Ensured workpiece quality

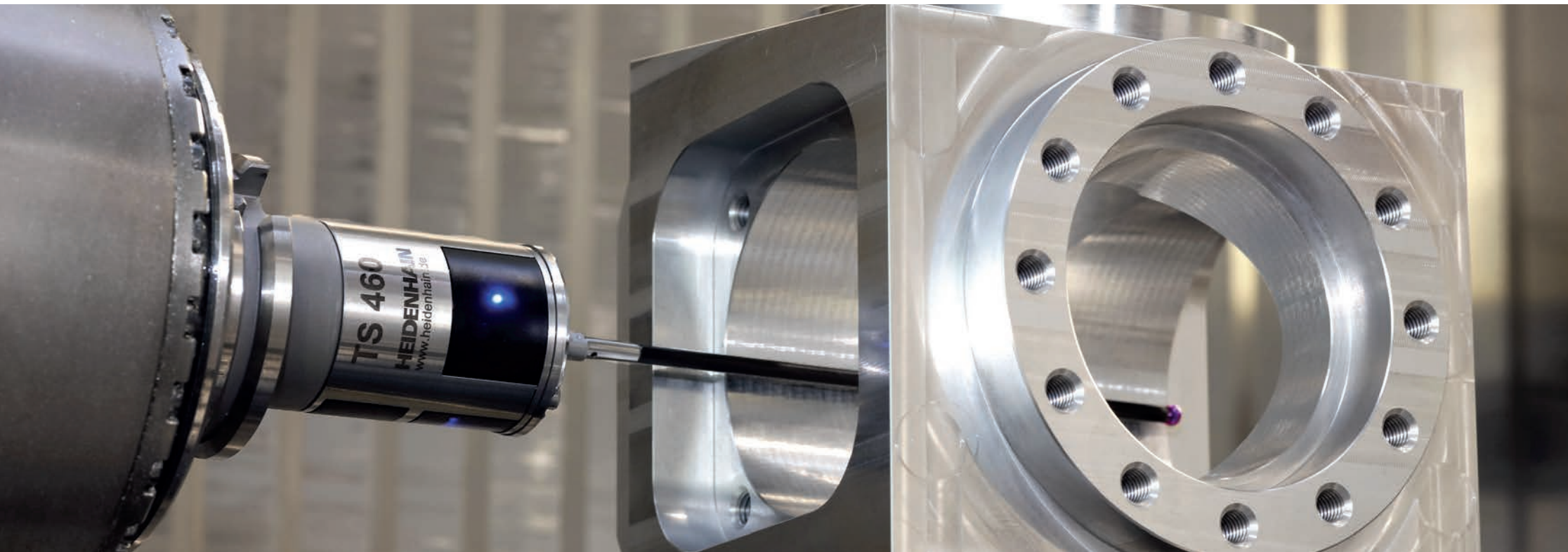
### TS 460: universal touch probe

- Probe repeatability  $2\sigma < 0.5 \mu\text{m}$
- Probing speed: up to 3 m/min
- Integrated workpiece cleaning function
- Enhanced optional collision protection



### TS 760: high-accuracy touch probe

- Probe repeatability  $2\sigma < 0.25 \mu\text{m}$
- Probing speed: up to 1 m/min
- Integrated workpiece cleaning function



## The right accessories for every scenario

### Styli

- Carbon-fiber styli for deep holes and difficult-to-reach measuring points
- Star insert for large holes or undercuts
- Steel or titanium extension
- Adapter for M4 styli



### Calibration spheres

- Separately orderable: KKH 80, KKH 250 and KKH 70 holder
- Set in a case: KKH 100, KKH 250, KKH 70 holder and mounting accessories

Accessories available  
directly from the  
HEIDENHAIN SHOP







TS 460  
HEIDENHAIN  
www.heidenhain.de

Everything B2B users need in a single platform



**HEIDENHAIN**  
**SHOP**

# HEIDENHAIN

**DR. JOHANNES HEIDENHAIN GmbH**  
Dr.-Johannes-Heidenhain-Straße 5  
**83301 Traunreut, Germany**  
☎ +49 8669 31-0  
☎ +49 8669 32-5061  
info@heidenhain.de

[www.heidenhain.com](http://www.heidenhain.com)



**HEIDENHAIN**  
worldwide