

## HARDENING SERVICE/ HARDNESS TEST FORM

YOUR ADRESS	Please complete and enclose in the package: DICTUM GmbH • Hardening Service		
Surname, First Name	Gottlieb-Daimler-Str. 3 • 94447 Plattling • Germany		
Street, House Number	DELIVERY ADDRESS (if different)		
Postal Code	Surname, First Name		
Town/City	Street, House Number		
Country	Postal Code		
Phone (for questions)	Town/City		
Customer Number (if available)	Country		
E-mail	Phone/Fax		

#### **DICTUM - Hardening Service**

We offer customers a qualified blade hardening service (up to 100 cm). Optionally, you can choose to receive an original test certificate with the exact hardness value of the cutting edge in HRC (Rockwell). This will give you a clear understanding of the actual end hardness of your blade after hardening. We harden all conventional stainless and non-stainless blade steels using the vacuum procedure (DIN-certified).

#### Process:

- 1) Draw the outline of the knife blade in the space provided (see page 2).
- 2) Fill in all fields with the requested data.
- Pack the blade in a suitable shipping carton and send it to the indicated address.
- 4) We will send the hardened blade back to your address stated above. Alternatively, it is also possible to pick up your hardened blade at our shops in Plattling or Munich by appointment.

#### **DICTUM - Hardness Test**

Have you always been curious about the hardness of your finished knife blade? If so, you can use this service to get us to test the hardness (HRC) of your knife blade at its cutting edge. Heat treatment shops generally only perform HRC tests on the tang or back of the blade. However, testing these areas does not provide any reliable information about the hardness of the blade itself. Performing an HRC test at the cutting edge would destroy the blade. This is why we use the Vickers hardness test, which uses very low test pressures and allows us to test a blade's hardness right at the cutting edge without destroying it. This method simply involves minimal grinding of the cutting edge, which is then returned to its original state after the test. On completion, you will receive a test certificate with spherical indention images and the Vickers values converted to HRC.

### **Important Note!**

- We recommend grinding the blade only up to a maximum grain of 150 before hardening.
- The blades should not be sharp before hardening, but should have a material thickness of **at least 0.5 mm** at the cutting edge! Otherwise, there may be severe hardening distortion at the cutting edge.
- Please note that the blades are subjected to extreme structural changes during hardening and that all stresses in the steel structure are discharged. In some cases this can mean a crooked blade, in rare cases a broken blade. This usually only applies to forged blades. We therefore recommend that you heat treat forged blades before hardening.
- Blades made of flat material should not have blued during grinding. If there are blue areas, we recommend that you anneal the blade with low stress before hardening in order to avoid hardening distortion.
- We do not assume any warranty for hardening distortion or breakage! Despite the greatest care, we cannot completely compensate for forging errors by heat treatment. In a few cases, blades may warp despite optimal heat treatment.
- We do not offer cryogenical hardening!
- We harden all blades in high-performance hardening oil.
- No tape on the blade! This can cause damage to the surface.
- A small bore hole in the tang or, with integral knives, in the non-visible handle area (e.g. holes for rivets) makes it possible to suspend the blade during the hardening process and thus may considerably reduce distortion.

SERVICE	Price per item	Number	Note
Hardening Service with test certificate	29,90€		
Hardening Service without test certificate	19,00€		
Hardness Test with test certificate	15,00€		

For further information on our Hardening Service see www.dictum.com/service	Plus shinning ch	arges (n	rices inc	·lude 1	<i>VΔT</i> )
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For detailed information on data protection see www.dictum.com/en/privacy-and-data-protection

Our general terms and conditions apply. You can find them at www.dictum.com/en/general-terms-and-conditions

Date, Location Signature

Surname, First Name

# INFORMATION FOR HARDENING SERVICE

Desired hardness in HRC (± 2 HRC): (If no value is given, we will harden your blade to the standard, material-related maximum hardness.)					
Type of steel (required):					
Note:					
SKETCH OF KNIFE BLADE:					
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Oraw the outline of the blade with a thin, black felt-tip pen in the space provided (only one blade per page).					