

# **hapfo** – AUTOMATIC LATHES

QUALITY AND RELIABILITY SINCE 1975



# CNC ALL-AUTOMATIC WOOD TURNING LATHE CHALLENGE-5000

**hapfo** CHALLENGE-5000

for industrial scale manufacture with parts ready for lacquer



For industrial scale manufacture and to satisfy highest demands on precision and in case of extremely complex parts, the CHALLENGE-2000 presents all technical advantages, which are characteristic for an efficient all-automatic CNC wood turning lathe. The CHALLENGE-5000 is capable of turning, milling, grooving, graving, drilling and grinding.

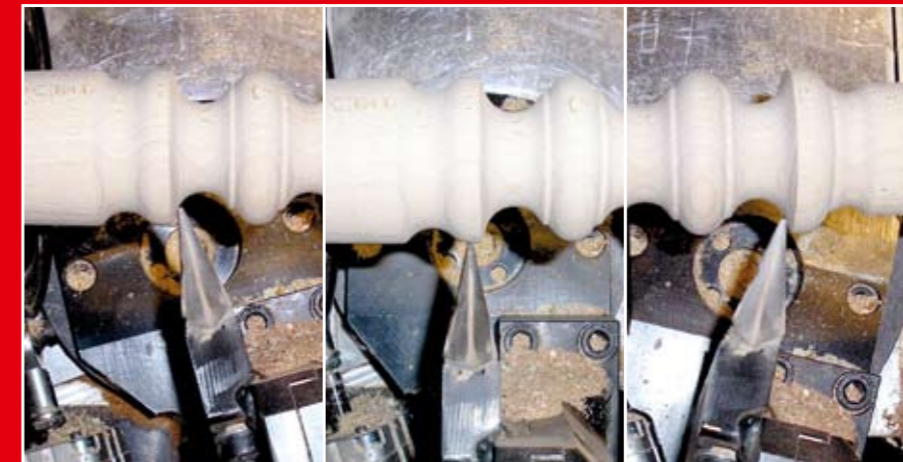
**DISTANCE BETWEEN CENTRES:** 1600mm

**COPYING LENGTH:** 1.300mm  
(depending on accessories like chucks, live centres, steady rests...)

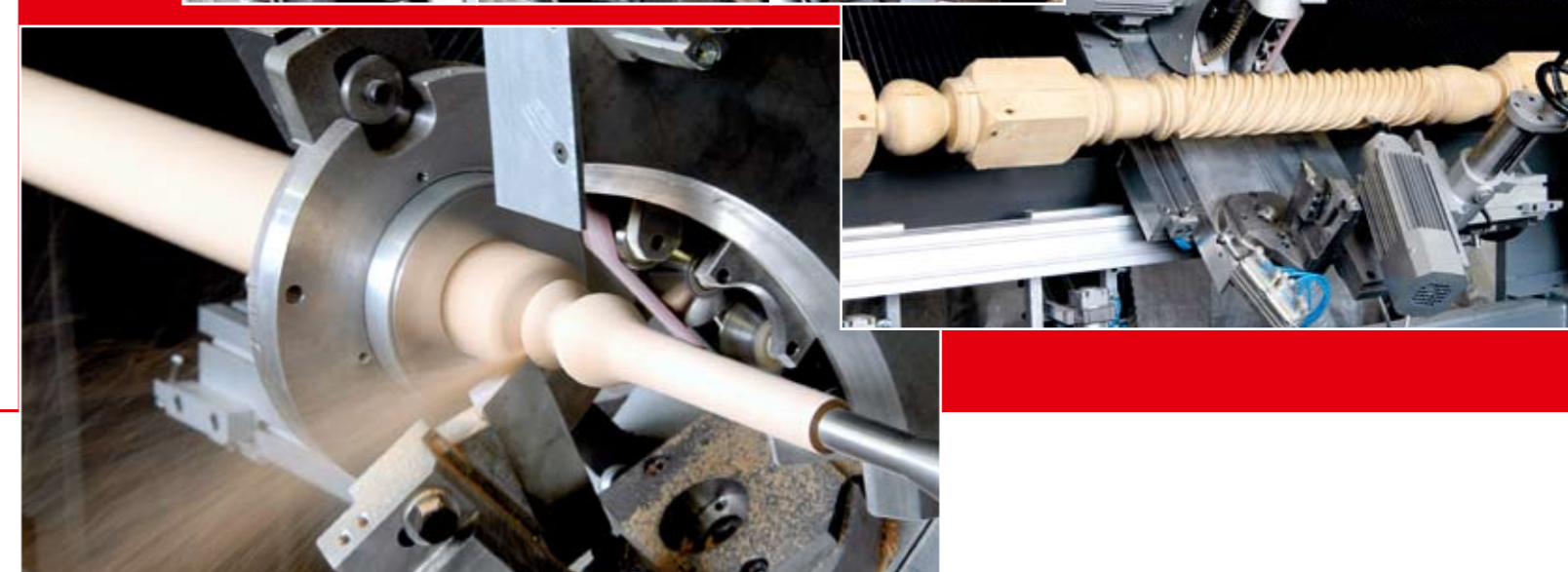
**COPYING DIAMETER:** max. 300mm (without magazine operation)

## **SPECIFIC CHARACTERISTICS OF THE CHALLENGE-5000:**

- Headstock and machine bed made of grey cast iron
- Pretensioned spindle bearing without backlash with thread M33 and MT3, hollow shaft for vacuum device.
- Bearing of all linear axes with linear guideways.
- Tailstock made of grey cast iron, controlled by the program or even manually, Actuated with a pneumatic cylinder, pressure can be adjusted by pressure relief valve, MT3
- optional you can get the swivel-tool accessory for continuously cutting of balls and 90° recesses in both directions



Options:  
Swiveling tool  
Milling spindle  
Sanding unit



- All kind of followers are available even for turning of very thin and long parts
- besides there is a sanding unit available, which can be controlled by the program to change between pointed and flat sanding
- simple programming of any machine parameters
- less training necessary due to standard 2D-CAD-Software
- Small parts can be made in „Bar“-Mode.
- Millings and groovings are possible in any thread or pitch with our milling attachment.

## **DRIVE:**

Frequency controlled motor. Infinitely variable by program.  
Optional CNC-controlled servo-drive motor for spindle speed from 0 to 3500 rpm

**DIMENSIONS (STANDARD):** Width = 3050mm (4600mm with opened sliding door),  
Depth = 2300, Height = 2.200 mm

**WEIGHT (STANDARD):** app. 1800kg depending on model and accessories

# CNC ALL-AUTOMATIC WOOD TURNING LATHE CHALLENGE-7000

**hapfo** CHALLENGE-7000

for industrial scale manufacture with parts ready for lacquer



For industrial scale manufacture and to satisfy highest demands on precision and in case of extremely complex parts, the CHALLENGE-7000 presents all technical advantages, which are characteristic for an efficient all-automatic CNC wood turning lathe. The CHALLENGE-7000 is capable of turning, milling, grooving, graving, drilling and grinding.

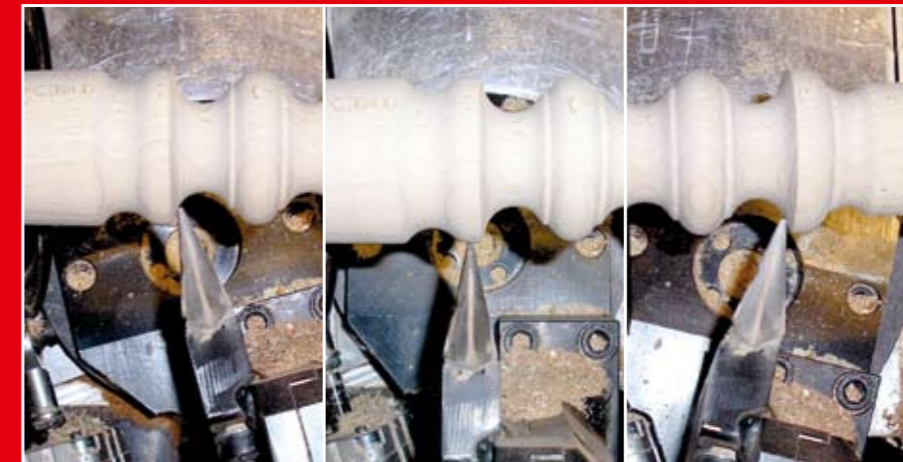
**DISTANCE BETWEEN CENTRES:** 1.750mm

**COPYING LENGTH:** 1.450mm  
(depending on accessories like chucks, live centres, steady rests...)

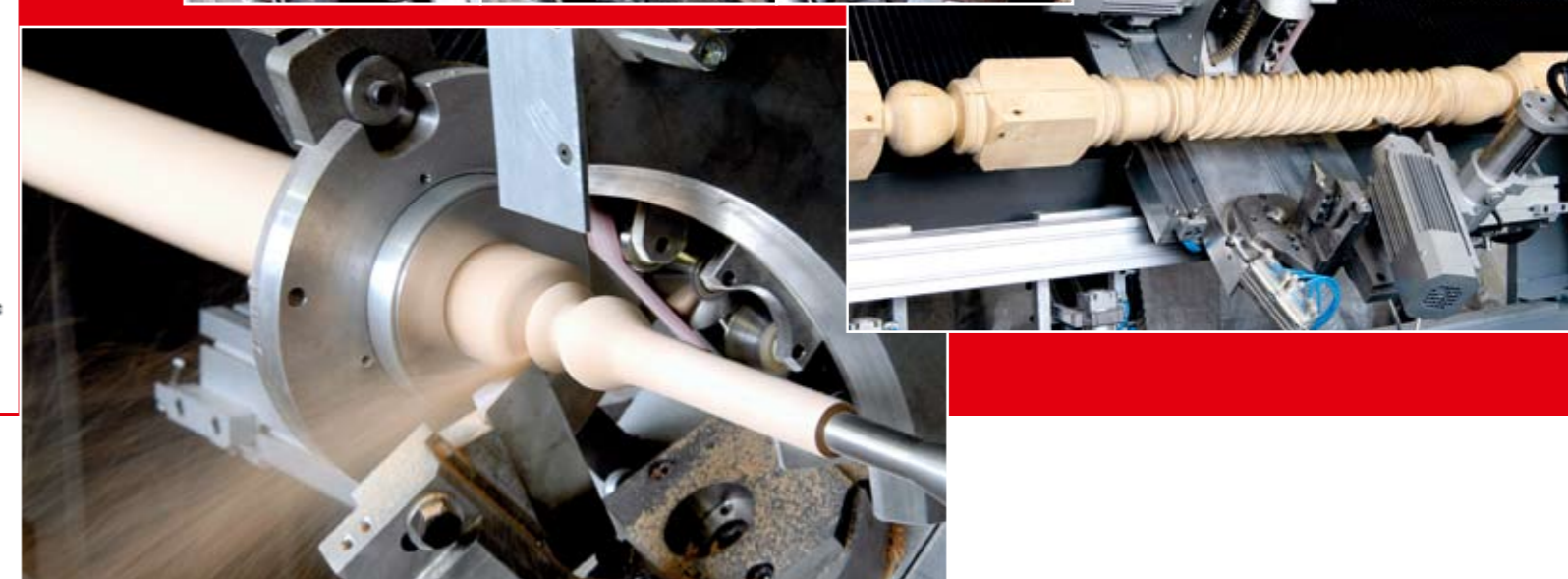
**COPYING DIAMETER:** max. 300mm (without magazine operation)

## **SPECIFIC CHARACTERISTICS OF THE CHALLENGE-7000:**

- Headstock and machine bed made of grey cast iron
- Pretensioned spindle bearing without backlash with thread M45 and MT4, hollow shaft for vacuum device.
- Bearing of all linear axes with linear guideways.
- Tailstock made of grey cast iron, controlled by the program or even manually, Actuated with a pneumatic cylinder, pressure can be adjusted by pressure relief valve, MT4
- optional you can get the swivel-tool accessory for continuously cutting of balls and 90° recesses in both directions



Options:  
Swiveling tool  
Milling spindle  
Sanding unit



- All kind of followers are available even for turning of very thin and long parts
- besides there is a sanding unit available, which can be controlled by the program to change between pointed and flat sanding
- simple programming of any machine parameters
- less training necessary due to standard 2D-CAD-Software
- Small parts can be made in „Bar“-Mode.
- Millings and groovings are possible in any thread or pitch with our milling attachment.

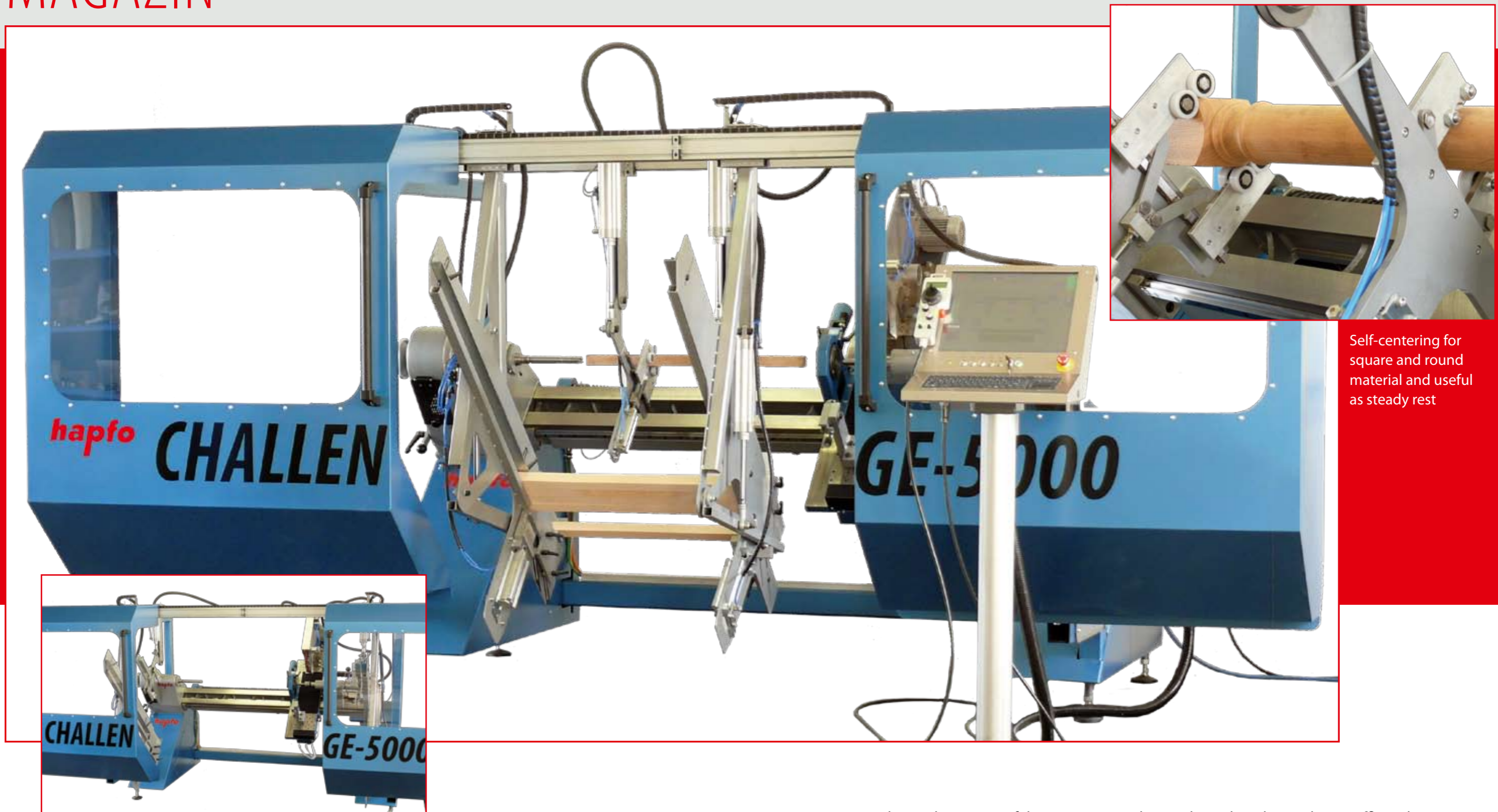
## **DRIVE:**

Frequency controlled motor. Infinitely variable by program.  
Optional CNC-controlled servo-drive motor for spindle speed from 0 to 3500 rpm

**DIMENSIONS (STANDARD):** Width = 3.350mm (4.900mm with opened sliding door),  
Depth = 2.300, Height = 2.200 mm

**WEIGHT (STANDARD):** app. 2.300kg depending on model and accessories

# MAGAZIN



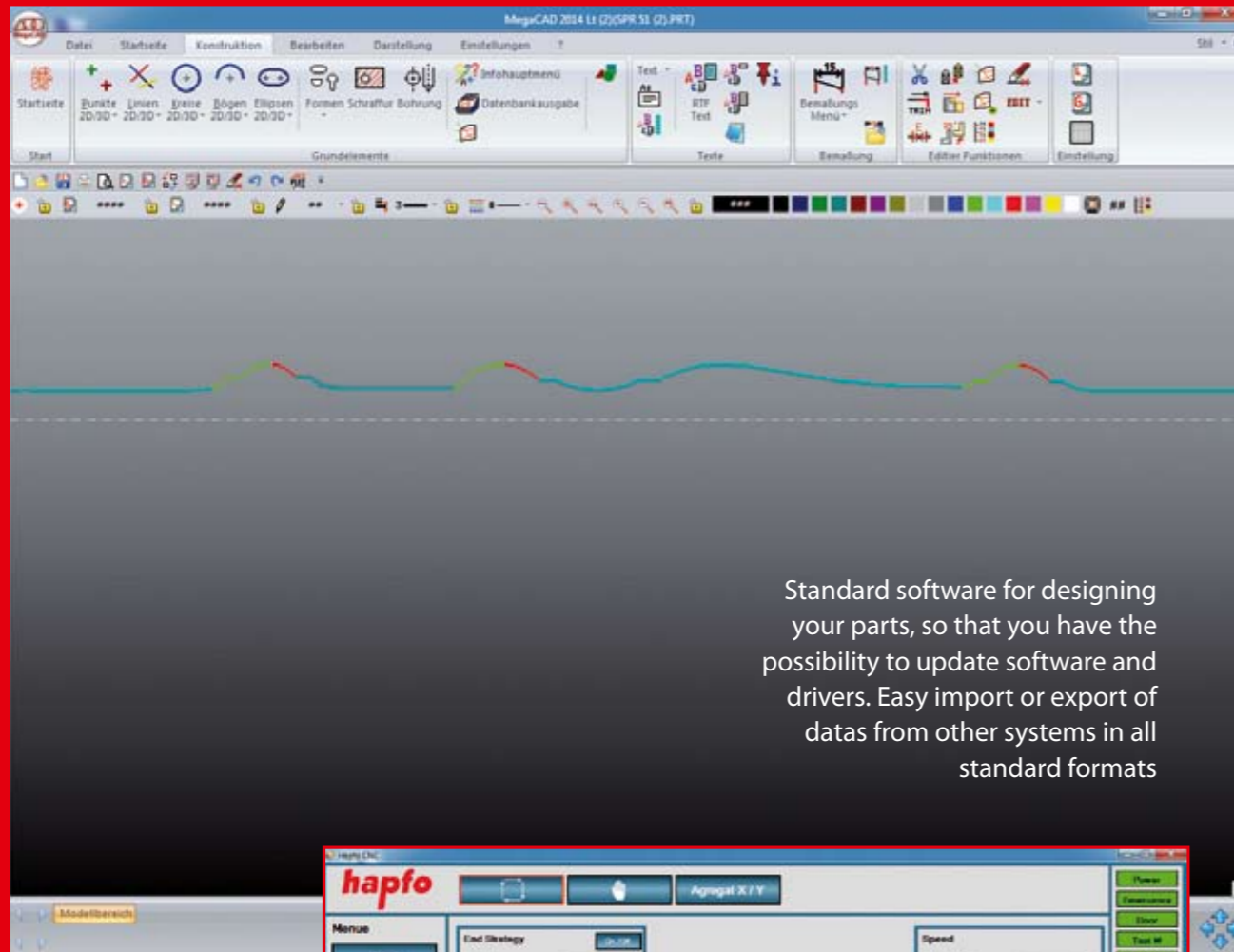
Self-centering for square and round material and useful as steady rest

For initial samples or unique parts, you can move the whole hopper system beside, so that you have absolutely free access to the machine. The new hopper system combines the experience of several generations before with some new and very beneficial details. It is self-centering either square or round wood. Due to the rollers in the gripper, the system can be also used as a software controlled steady rest for very thin parts, which reduces production time.

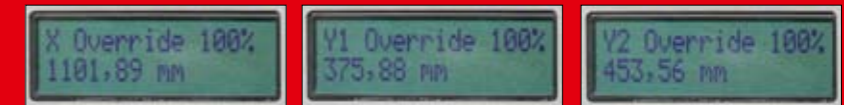
Due to the inside position of the gripper, even distorted wood can be used more efficiently. The handling and operation of the machine can be done completely from the frontside. The machined parts can be removed either from front or backside of the machine.

The gripper system can be also used as centering device for initial samples or unique parts of a dimension of 130mm square. The length of the raw material can be adjusted between 140mm and 1300mm. Optional you can mount it to a length of 100mm.

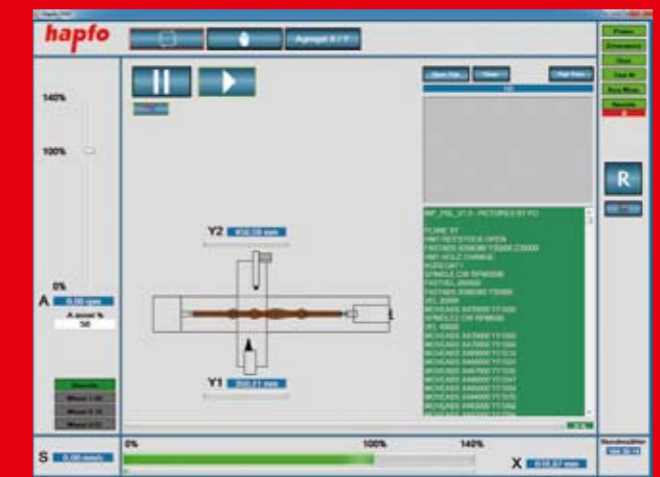
# SOFTWARE AND PROGRAMMING



Standard software for designing your parts, so that you have the possibility to update software and drivers. Easy import or export of datas from other systems in all standard formats

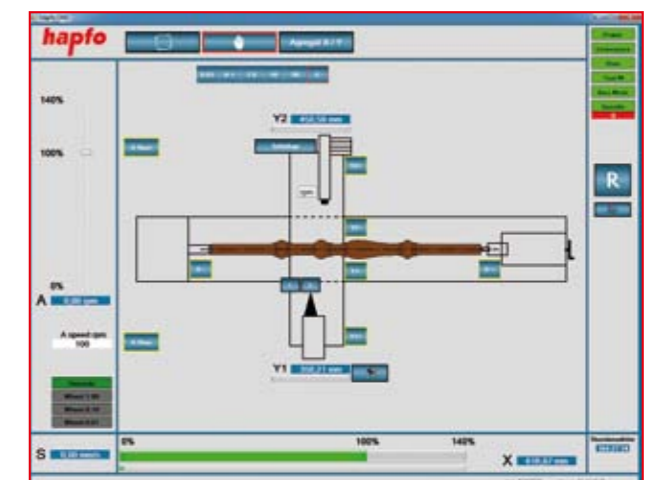
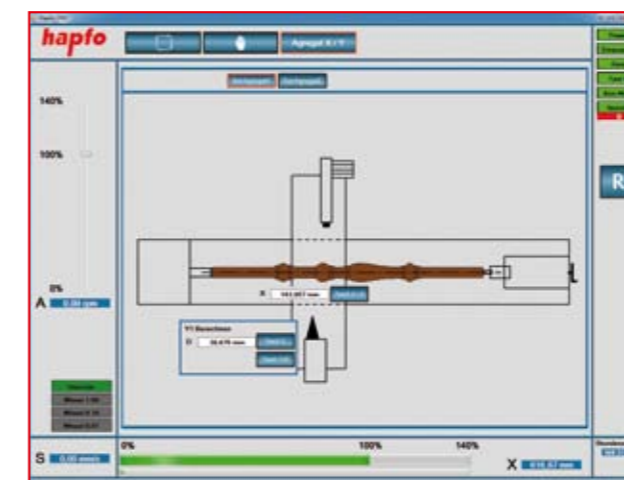
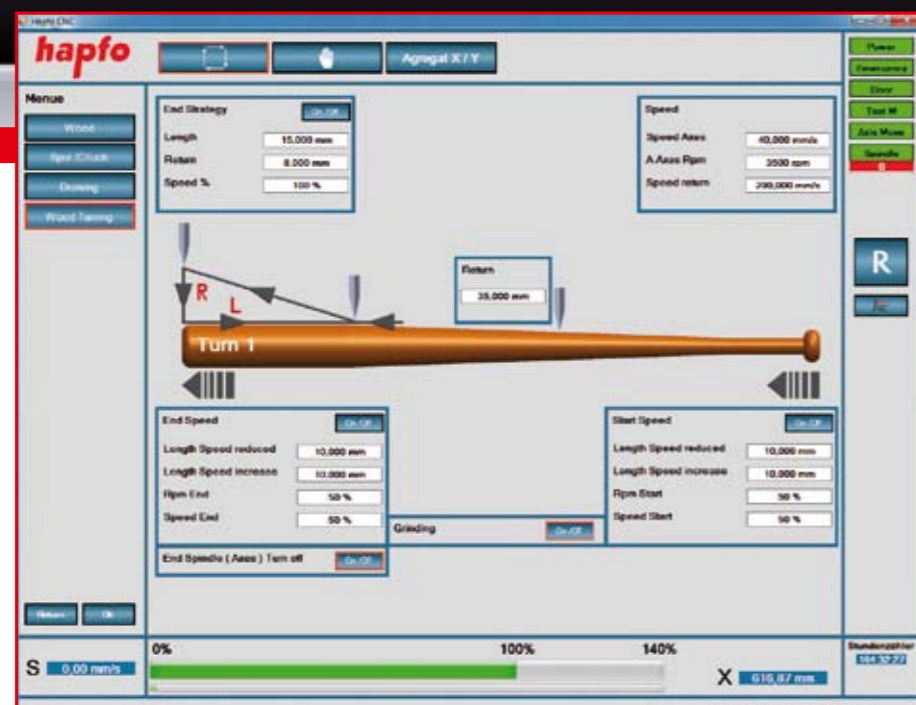


**HANDWHEEL FOR MANUAL AND AUTOMATIC MODE**  
 With the new handwheel you can control either each axle separately in manual mode, or even control spindle speed and feed rate infinitely variable in the automatic mode. You can use it ale for START, PAUSE or STOP of the program.



All menu-items are graphical and marked with icons. You get any time all informations like spindle speed, feed rate, positions of all axles or the actual progress in the automatic program. Also the hopper system can be controlled with it very easily.

All other parameters are saved in the machine software





Your dealer

Titelfoto: Nadine Schachinger - Herzflimmern



# hapfo

**gh-tec**  
Maschinenbau GmbH

Westernacher Straße 52 · 87719 Mindelheim · Telefon +49 (0) 8261/7669-0  
Telefax +49 (0) 8261/7669-26 · [www.ghtec.de](http://www.ghtec.de) · E-Mail: [info@ghtec.de](mailto:info@ghtec.de)  
[www.hapfo.de](http://www.hapfo.de) · [info@hapfo.de](mailto:info@hapfo.de) · [www.hapfo-lathes.com](http://www.hapfo-lathes.com)

Version 04/2015