The reference standard for effective CNC machining

PRO-MASTER 7123 | 7223

PRODUCTIVITY AND PRECISION

HOLZ-HER

Superior performance

Two machine sizes – Two perfect machines

- The stability of the moving stand on the PRO-MASTER 7123 / 7223 has been optimised using the "Finite Element Method". It can withstand high loads in spite of its low weight. This allows extremely high load values and exceptional dynamics.
- All linear guides are of reference quality and are designed for excellent guidance precision, particular running quietness and extremely long service life.
- High-quality, powerful drive and transmission technology is a prerequisite for the extreme acceleration values and the rapid displacement speeds of the PRO-MASTER series.

Oblique, polished teeth ensure exact positioning accuracy and quiet running. The high quality of the material ensures minimum wear and a long service life.

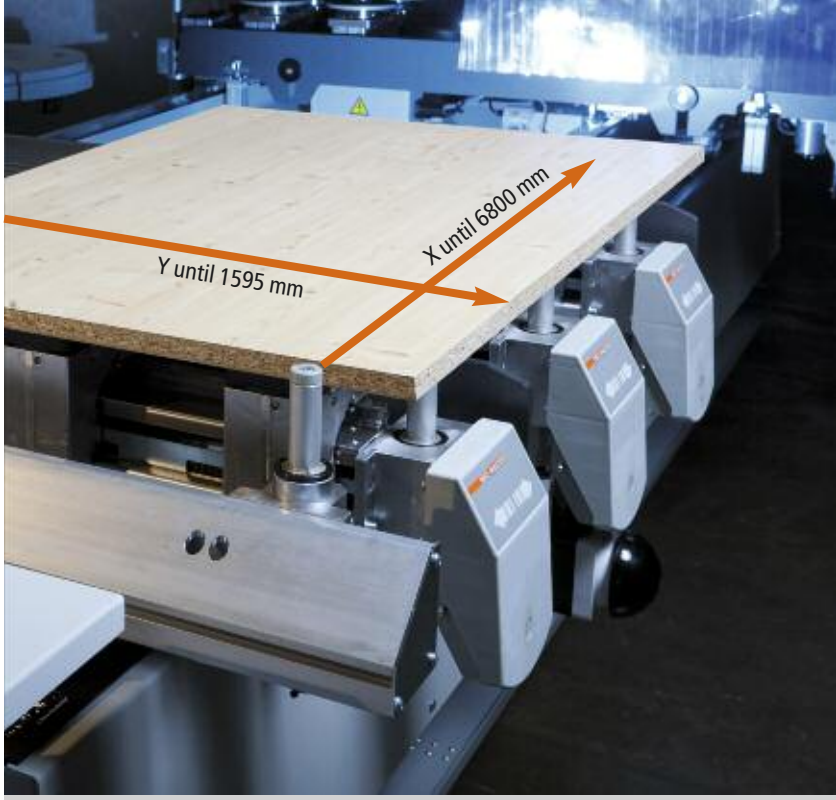
The PRO-MASTER 7123 and PRO-MASTER 7223 from HOLZ-HER set the standards for economic and highly flexible CNC machining. The performance spectrum of these machining centres really hits the mark:

- High processing rates
- Extraordinary precision
- Simple, ergonomic operation

The absolute concentration on practical requirements make the PRO-MASTER series unique in its price class and make it the perfect machining centre for all companies requiring high flexibility or industrial standards.

Illustrations may contain optional features.

and equipment



PRO-MASTER 7223 – opens up new dimensions

The PRO-MASTER 7223 is unbeatable in terms of its combination of technology, displacement travel and price/performance ratio. A rack-and pinion gear drives the machine in the X and Y-directions ensuring extremely high precision at high acceleration rates and speed values. The large displacement travel in the Y and Z-directions open up new machining dimensions.

The basic frame with its short, compact design and the one-armed stand – both designed as welded structures – guarantee superior stability. Together with the polished and hardened prism guides, this forms the basis for the precise operation of the powerful units. A 3-field safety footmat makes pendular machining possible. In the optional 5-field version, the footmat offers even greater freedom of movement, especially in the case of exceptionally long machine tables.

1

CONSOLE TABLE

Ergonomic and easy handling

- Dimension display with tape measure for quick console and vacuum extractor positioning [Fig.1]. A digital display located ergonomically to the end is available as an option for each console. Information regarding the nominal positions of the consoles, suction pads and types of suction pads are provided online by the control system, where they are defined by the user.
- The interval between the solenoid valves has been optimised to match the size of the vacuum suction pads [Fig. 2]. The advantages are: All positions on the consoles can be reached and the suction pads are positioned close to one another.
- The consoles can be displaced in the X-direction on ground and hardened linear guides. Both right-handed and left-handed users can easily release and clamp the consoles pneumatically at the touch of a button. [Fig. 3]. Four pneumatic loading aids can be raised and lowered to make handling of heavy workpieces seem like child's play.

Console table – the w for optimum operatio

Precise machining requires exact and secure positioning of the workpieces. The PRO-MASTER series is equipped with a console table for this purpose [Fig. 7].

- It offers high flexibility for machining work-pieces in panel form.
- Even workpieces with complicated shapes can be clamped quickly and simply [Figs. 4 and 5].

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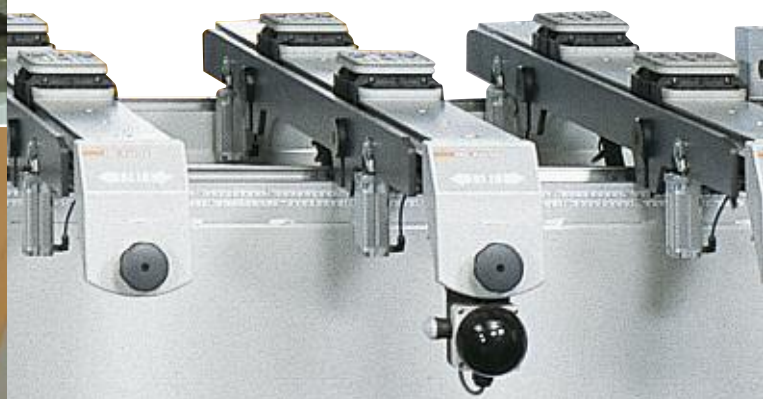

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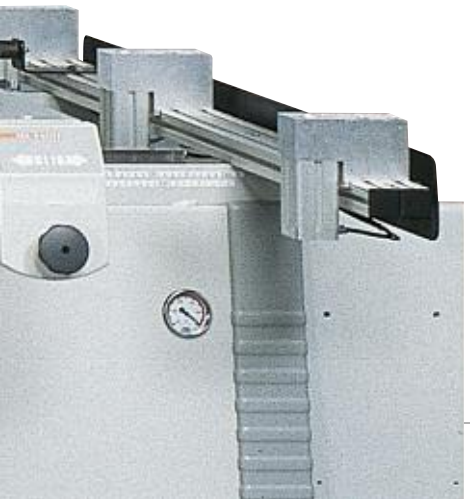
orkpiece support
n

- The console table on the PRO-MASTER 7123 and PRO-MASTER 7223 is ergonomic in every detail. The workpieces are clamped on the freely movable consoles by suction pads and a single-loop vacuum system. The pre-positioned consoles and suction pads can be adjusted using a digital display, available as an option.
- Up to eight machining fields are possible.

Automatic clamping

- Convincing solutions from the wide variety of clamping and fixing systems available.
- Stable support and strong hold for every workpiece.
- Front row of stops makes it easy to charge even small workpieces or for double use of one operating field (front/rear stops) [Fig. 6].



1

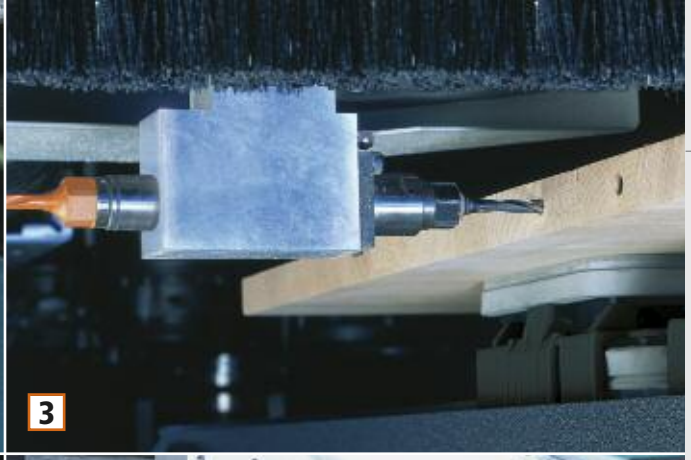
MACHINING HEAD

Multifunctional equipment, optimised for daily use

Drilling, sawing, cutting, grooving – the machining head on the PRO-MASTER 7123 / 7223 is equipped for multifunctional use and is suitable for rational production of simple and complex carcass parts in long-term use. The two prism guides in the Z-direction are hardened and polished to prevent even the slightest deviation.

6


2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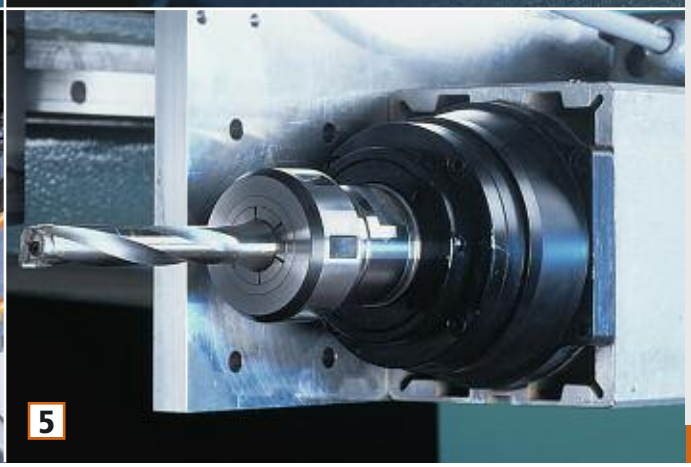
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- The integrated and compact design of the machining head [Fig. 1] sets standards in terms of dynamics, acceleration and positioning accuracy.
- Even with the basic equipment the PRO-MASTER 7123/7223 offers a wide processing range.
- Drilling unit with 18 spindles which can be called up individually, arranged vertically in an L-shape; power 3 kW, 1000 – 6800 rpm [Fig. 2].
- Horizontal drilling unit with two double spindles in X-direction and one double spindle in Y-direction; optional third double spindle in X-direction [Fig. 3].
- Cutter unit with 11 kW with HSK 63F, 1000–24 000 rpm [Fig. 4]. Optional 16 kW.
- Sawing unit dia. 125 mm in X-direction (optional). Max. speed 1000–6800 rpm.
- Sawing unit dia. 250 mm in X and Y-direction, pivoting (optional). Power: 3.5 kW
- Vector axis (C-axis) 0–360° endlessly rotatable for variable use of changeover units (optional).
- Horizontal cutter unit/lock box cutter. Power: 5.6 kW (optional) [Fig. 5].

TOOL CHANGER

Guaranteed for maximum efficiency

- Variable equipment for rational machining. The moving tool changer (available as an option) with 8, 12 or 18 tool spaces ensures short set-up times and high productivity [Fig. 7].
- Further options include a pick-up changer with two spaces for large angle drives and a 14-fold liner tool changer for the PRO-MASTER 7123 as well as 16-fold pick-up installation on the PRO-MASTER 7223 [Fig. 6].


7

7950

7953

7954

Changeover units – technology for inspiration

- **Shaping head 7950**
  Sensing machining.
  With collet chuck,
  dia. = 2–16 mm; optional
  Sensing bell with inner
  diameter of 110 or 66.5 mm
- **Angle slewing gear 7953**
  Drilling, sawing, cutting. Slewing
  gear 0–100°, manually adjustable.
  With saw blade mount,
  dia. = 180 mm and
  collet chuck dia. = 1–16 mm;
  n (max.) = 15,000 rpm.
- **Angle drive 7954**
  Drilling, cutting. 2-spindles for
  collet chucks, dia. = 2–16 mm;
  1 x left-hand rotation,
  1 x right-hand rotation;
  n (max.) = 15,000 rpm.

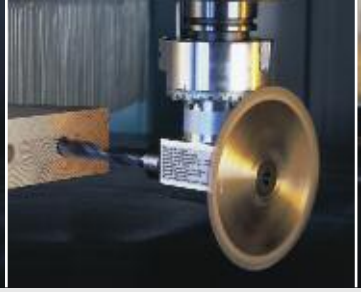
CHANGEOVER UNITS

Solutions for all types of use

A wide choice of up to 24 changeover units makes it even faster, more rational and easier to machine even complex workpieces. Here details determine quality and efficiency.

The large number of modern materials and various designs requires competent and reliable solutions. This is why the PRO-MASTER series offers flexible answers for a wide range of applications.

7955



7956

7957

7959

- **Angle drive 7955**
  Sawing. With saw blade mount, dia. = max. 220 mm; n (max.) = 6750 rpm.
- **Angle drive 7956**
  Drilling, sawing, cutting. 2-spindles for collet chucks, dia. = 2–16 mm; and saw blade mount Dia. = max. 180 mm; n (max.) = 15,000 rpm.
- **Angle drive 7957**
  Drilling. 4-spindles for collet chucks, dia. = 1–16 mm; n (max.) = 10,000 rpm.
- **Angle drive/lock box cutter unit 7959**
  One output for tool shank, dia. = 16 mm; n (max.) = 12,000 rpm.

C–AXIS

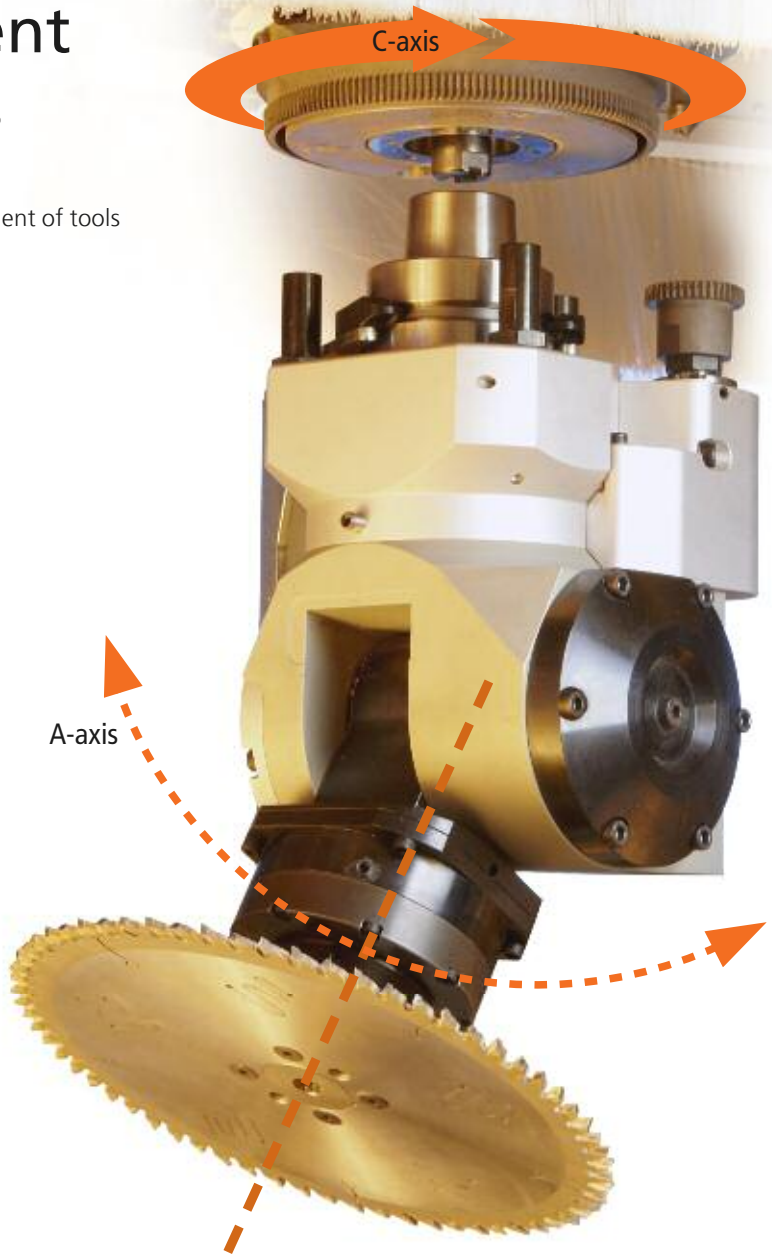
Open in all directions

The optional C-axis makes the HOLZ-HER machining centres PRO-MASTER 7123 and PRO-MASTER 7223 open in all directions. This widens the spectrum for demanding machining programs.

- As a genuine, fully interpolated additional axis, it can be rotated infinitely in all directions during the machining operation.
- Smooth adjustability and endless rotation through 360° increase the flexibility.
- The C-axis can thus be positioned on the shortest, direct route.
- A pneumatic option also allows the machine to be blown out simultaneously during the cutting process.

Automatic adjustment for A-axis and C-axis

Large range of application with infinite, automatic adjustment of tools in vertical plane from 0 to 100 degrees [Figs. 1 and 2]



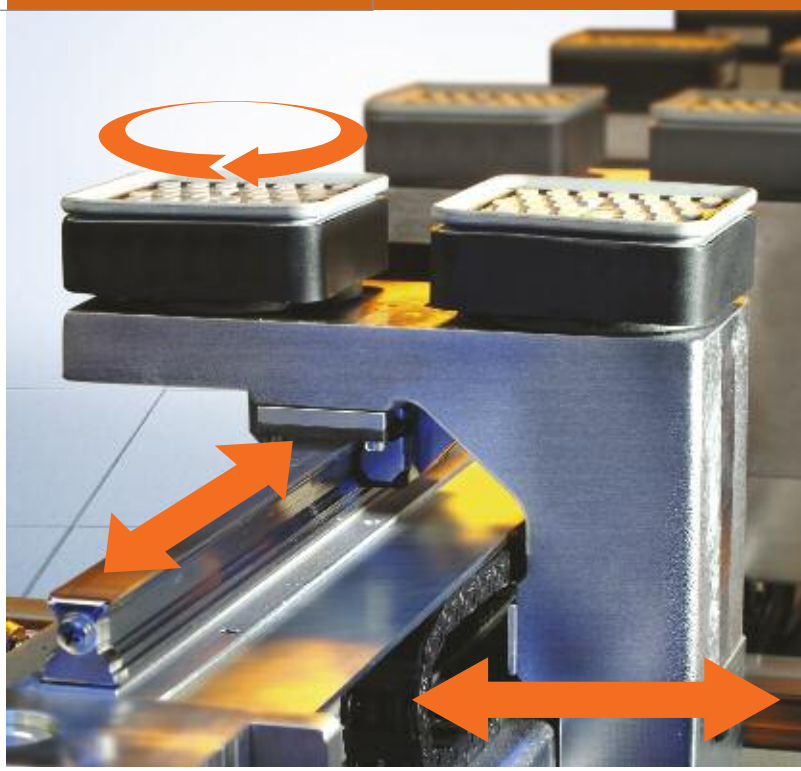
Basic equipment

- Interchangeable VarioNC unit
- Pick-up space for interchangeable VarioNC unit
- C-axis
- A-axis for adjustment of tool in vertical plane, infinite from 0 to 100 degrees
- 7894 tool changer, magazine for 6 tools, pick-up system. Especially for Vario tool change tool holders [Figs. 3 and 4]

Illustrations may contain optional features.

Quick, automatic conversion

The Vario table consists of six consoles, each with three moveable suction pads. The entire working table can be changed over within a few seconds. Consoles and suction pads are positioned automatically by the control system.

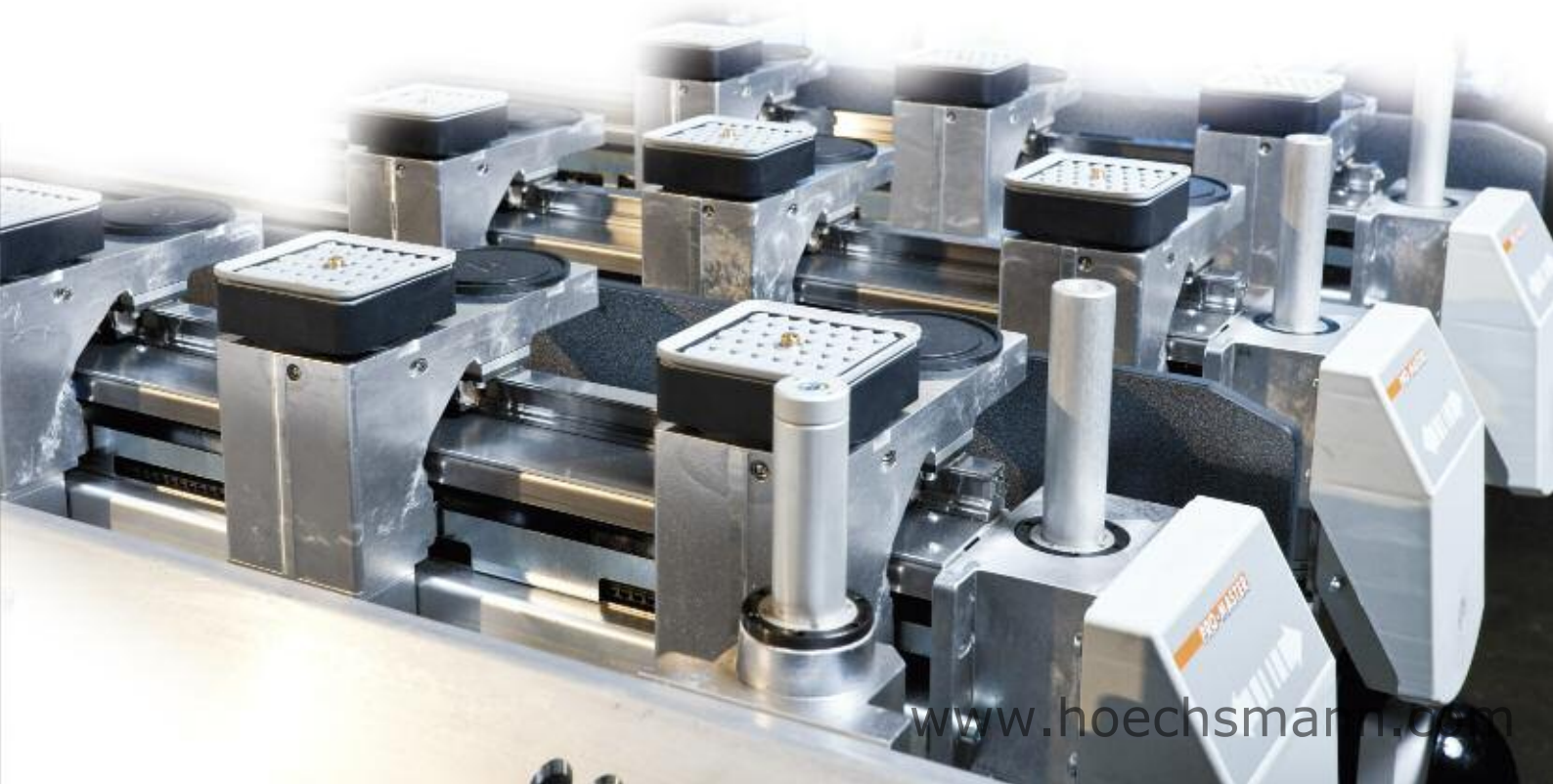


Basic equipment

- Six consoles, with motor-driven rack-and-pinion drive for positioning on hardened linear guides.
- Three suction pad holders per console, one vacuum suction pad with sensing valve, second vacuum suction pad optional.
- Suction pad mounts with motor-driven rack-and-pinion drive for positioning on hardened linear guides.

Options

- Additional consoles and suction pads.
- Controlled pneumatic clamps for automatically clamping window profiles and similar workpieces.

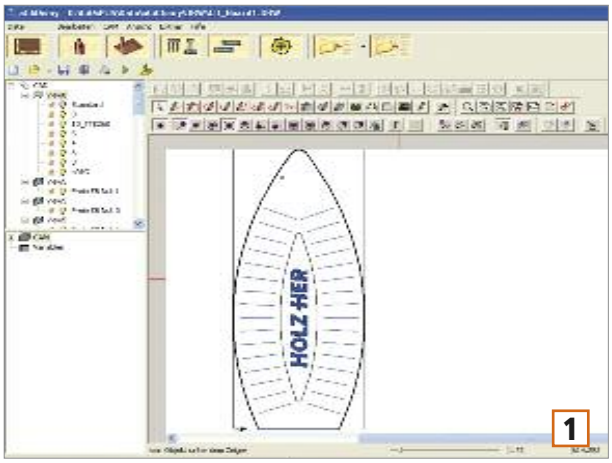


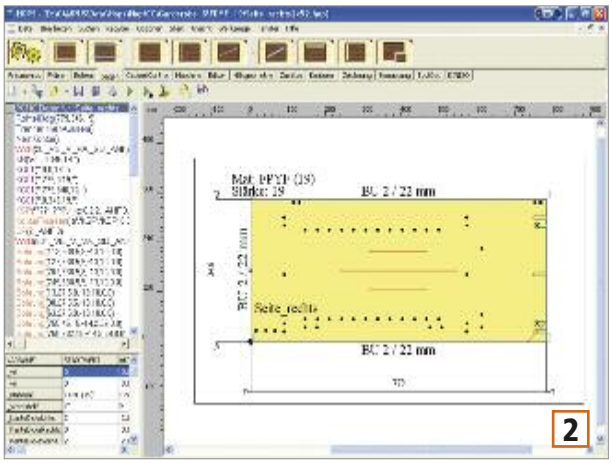
Software, that can do everything – simple, clear, convenient

The control system guarantees outstanding digital precision. The integrated graphic user surface offered by the CAMPUS software ensures convenient and intuitive use of all machine functions. The software includes a multitude of features such as barcode interface, manual control unit, import capabilities and much more for effective and comprehensive use of the PRO-MASTER 7123/7223.

CAMPUS – with integrated CabinetControl software

- Campus aCADemy is a fully fledged, high-performance CAD/CAM software package with versatile import features [Fig. 1].
- In addition to variable programming, 3D views and simulations, the NC Hop editor offers full Z-axis interpolation and a text editor.[Fig. 2]. "Easy Snaps", adjustable parameters and well-conceived macros additionally simplify and speed up program control.
- The WorkCenter shows the machine table assignment. Tools, drilling heads and routes are automatically optimised over the workpiece as a whole and the machining times are calculated.
- The MT Tool Manager allows clear, graphic set-up using "Drag & Drop" [Fig. 4].





- Open software architecture allows uncomplicated incorporation of existing data and connection to a wide range of branch, design and CAD/CAM software [Fig. 6].

CabinetControl software for simple production of cabinets [Fig. 5]

- Cabinet design.
- 2D and 3D views.
- Quick adaptation for furniture tailor-made to customer's desires.
- Perfect presentation of furniture.
- Automatic creation of cutting plans.
- CNC machining program created automatically at the touch of a button.

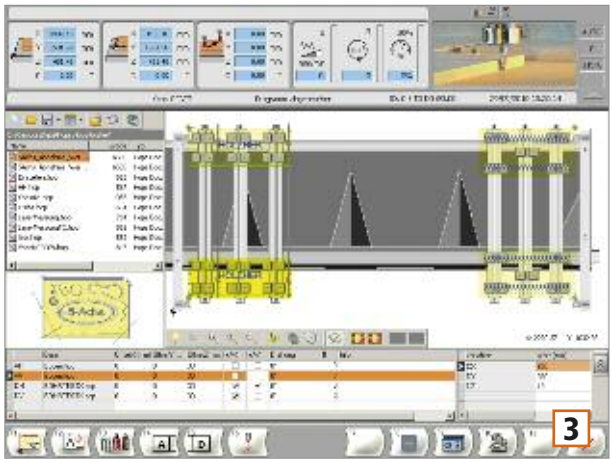
DATA NETWORKING

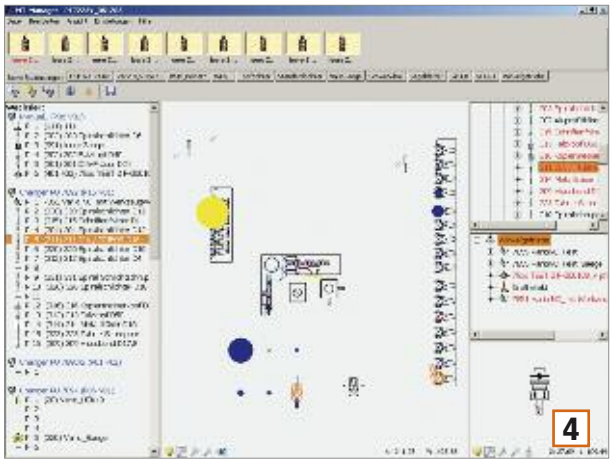
HHPDE network-compatible software for all HOLZ-HER Machines

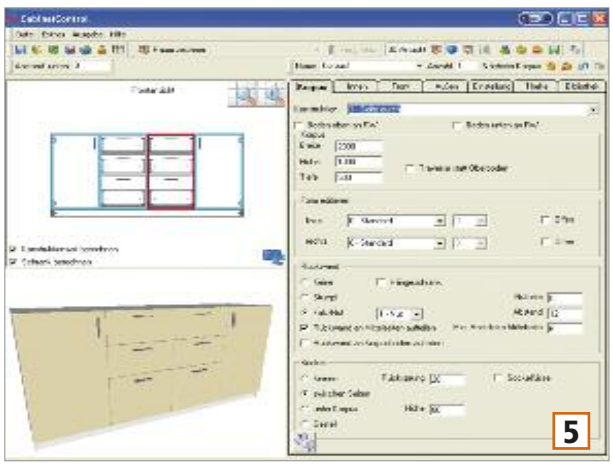
All HOLZ-HER machines can be networked with each other. The digital workflow between the CabinetControl software, the saws, the edgebanders, the CNC machining centres and the HHPDE software (HOLZ-HER process data capture) ensures efficient production. HHPDE offers:

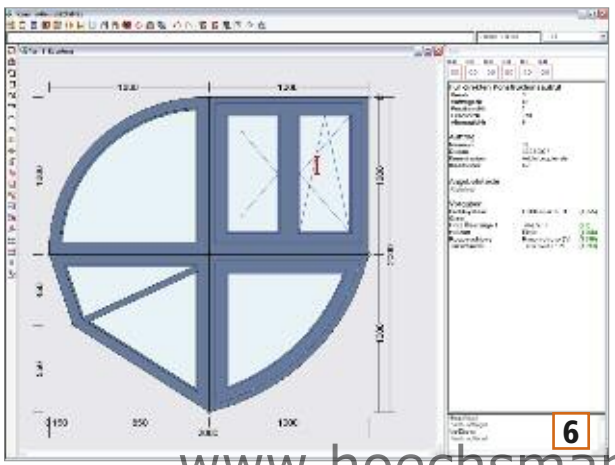
- Capture of all operating data,
- Time scheduling and calculation for order planning,
- Exact evaluation of job-related production data.

HHPDE is therefore the basis for efficient calculation.



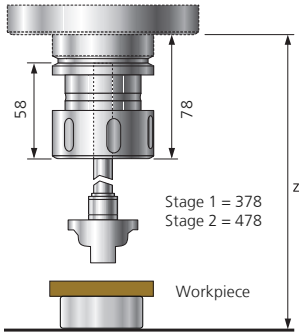






Z-axis 7123

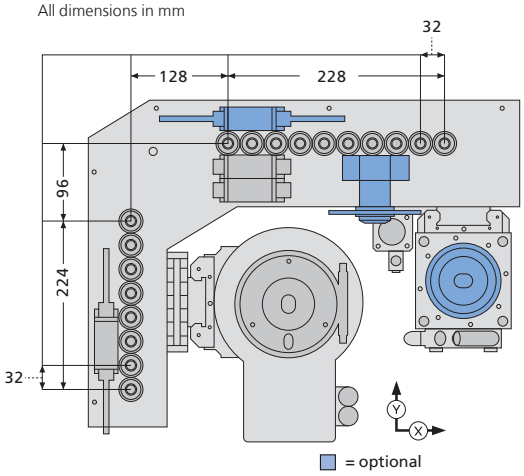
All dimensions in mm



Z measured from top edge of console

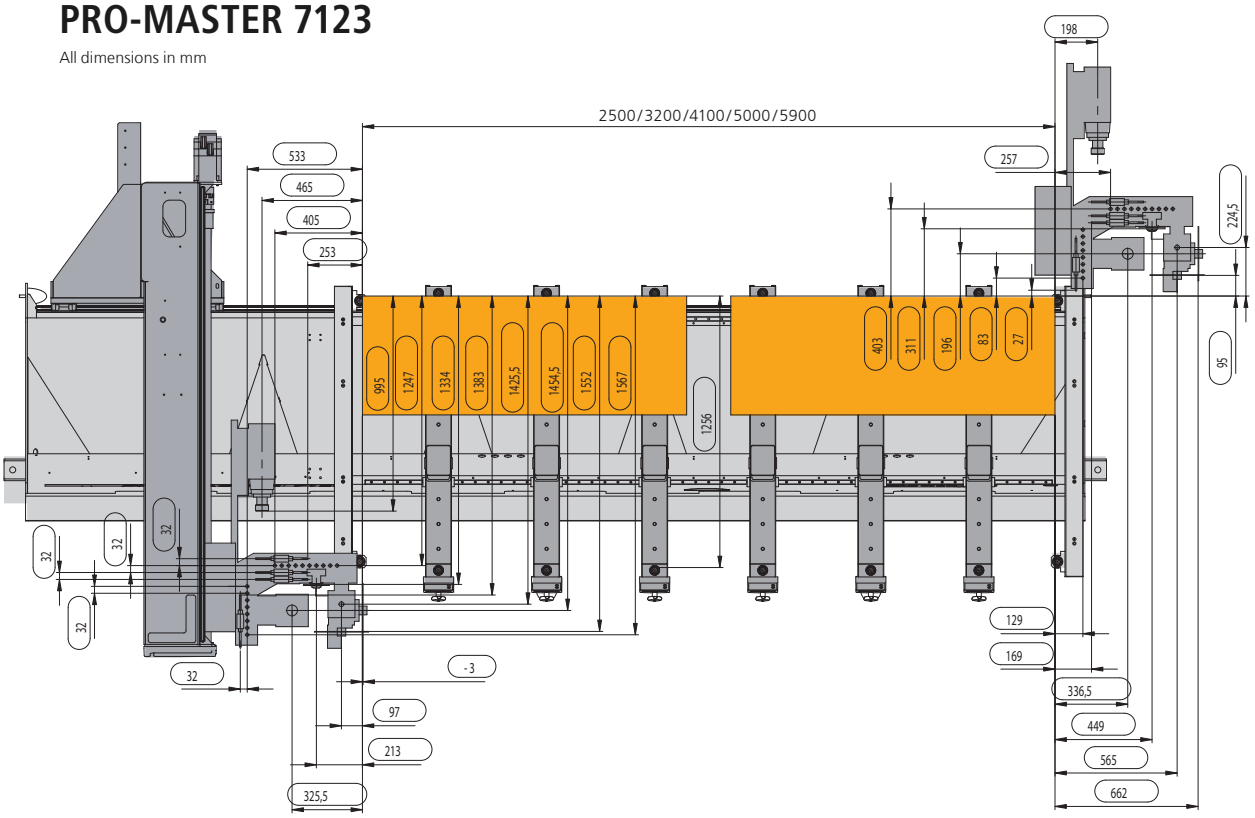
Machining head 7123 | 7223

All dimensions in mm



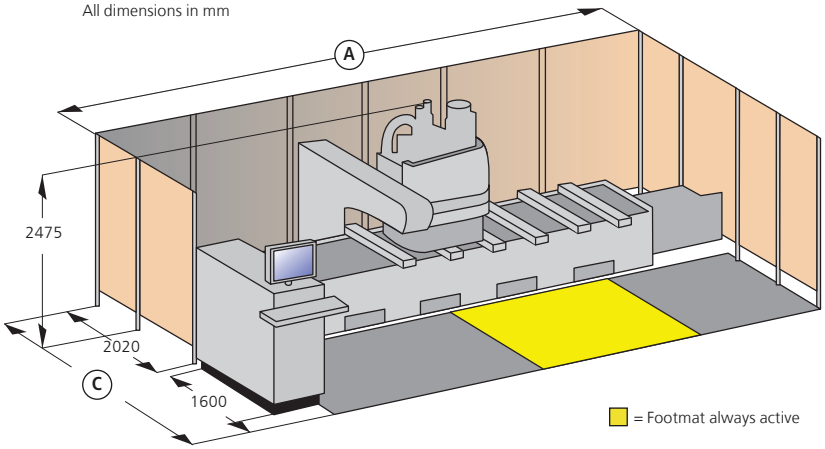
PRO-MASTER 7123

All dimensions in mm



PRO-MASTER 7123 | 7223

All dimensions in mm



Switch cabinet on left-hand side of machine

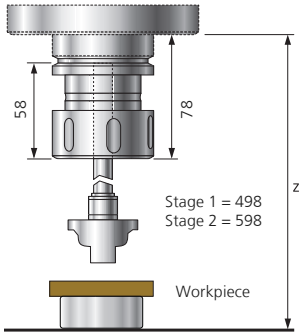
PRO-MASTER 7123 | 7223

All dimensions in mm	A
250	5520
320	6420
410	7320
500	8220
590	9120

All dimensions in mm	C
PRO-MASTER 7123	3870
PRO-MASTER 7223	4105

Z-axis 7223

All dimensions in mm



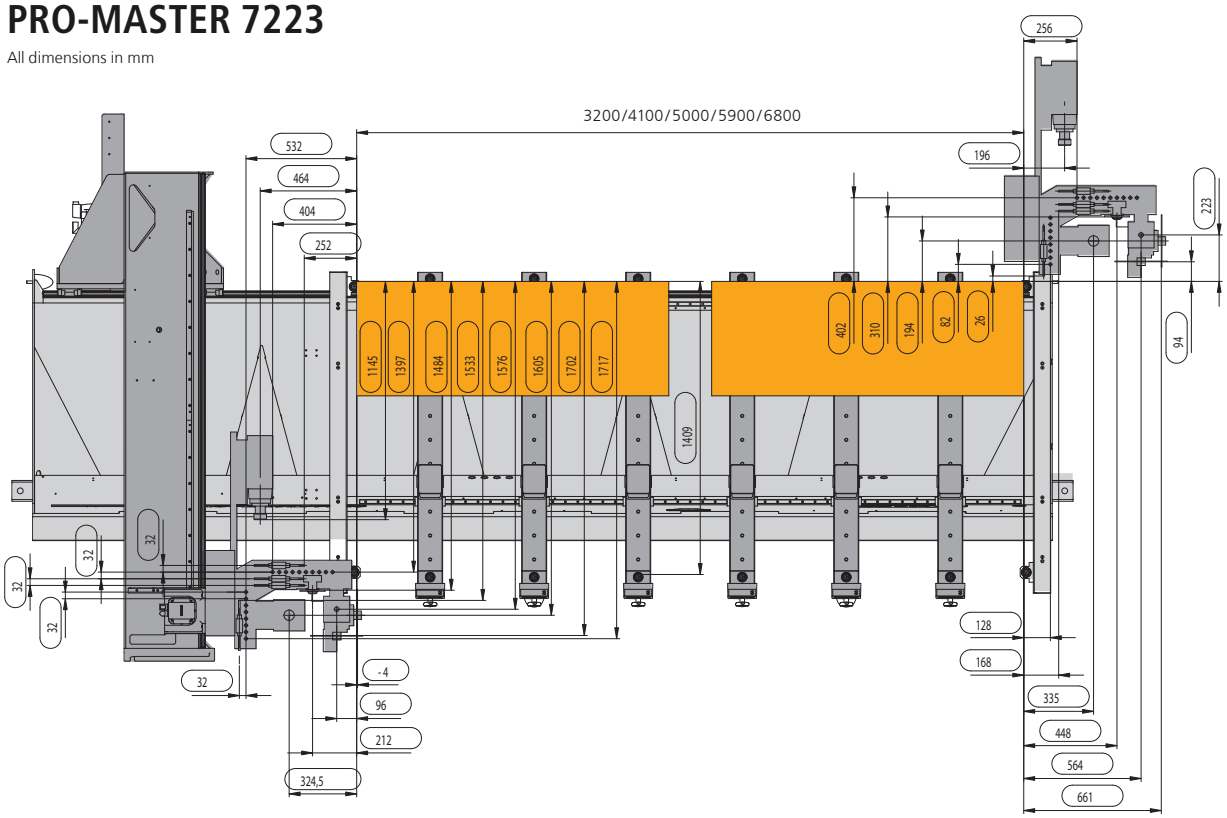
Z measured from top edge of console

Pendulum Processing for Safety and Efficiency

The 3-field safety footmat opens the door to a considerable increase in efficiency and a high level of profitability. This means workpieces can be removed and loaded on one side while the machining centre continues machining operations on the other side of the table.

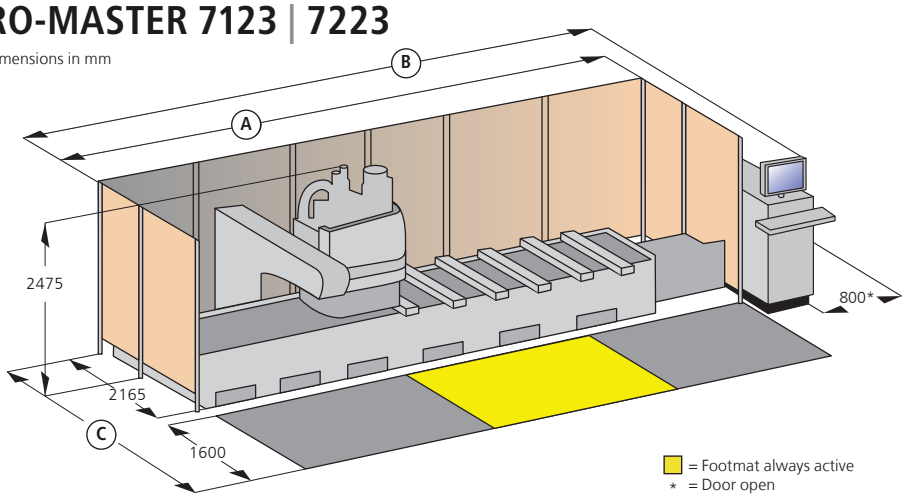
PRO-MASTER 7223

All dimensions in mm



PRO-MASTER 7123 | 7223

All dimensions in mm



Switch cabinet on right-hand side of machine

PRO-MASTER 7123 | 7223

All dimensions in mm	A	B
320	6880	8280
410	7780	9180
500	8680	10 080
590	9580	10 980
680	10 480	11 880

All dimensions in mm	C
PRO-MASTER 7123	3870
PRO-MASTER 7223	4105

Product brochures and numerous videos can be found at
www.holzher.com

Technical data

	PRO-MASTER 7123/ PRO-MASTER 7223
Machine dimensions	
Weight (kg)	4300/4450
Drives, basic machine	
Vector speed (m/min)	142
Max. displacement speed X-axis (m/min)	100
Max. displacement speed Y-axis (m/min)	100
Max. displacement speed Z-axis (m/min)	25
Max. displacement speed C-axis (rpm)	60
Motor power, cutter unit, type 7831 (kW)	11
Rotational speed, cutter unit, type 7831 (rpm)	1000 – 24000
Motor power, cutter unit, type 7832 (water-cooled) (kW)	11
Rotational speed, cutter unit, type 7832 (rpm)	1000 – 24000
Motor power, cutter unit, type 7935 (water-cooled) (option) (kW)	16
Rotational speed, cutter unit, type 7935 (option) (rpm)	1000 – 24000
Motor power, drilling unit, type 7976 (kW)	3
Rotational speed, drilling unit, type 7976 (rpm)	1000 – 6800
Electrical system	
Connection voltage (Volts)	3 x 400
Mains frequency (Hz)	50 / 60
Power (depending on equipment) (kW)	22
Compressed air	
Operating pressure (bars)	6.0
Permissible limit pressure (bars)	8.0
Compressed air requirement (l/min)	300
Dust extraction	
Extraction rate (m^3/h)	5300
Static vacuum (Pa)	2500 – 3000
Connector dia. (mm)	250
Dust extraction rate at connector (m/sec)	30

Die The technical data specified is intended for reference only. HOLZ-HER woodworking machines are subject to constant development and are therefore subject to modification without prior notice. The illustrations are therefore not binding. Some of the machines shown also contain special equipment not included as a standard feature. For clarity, some of the machines are shown without protective hood.

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