



**HOLZHER**

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**Model Pro Master-7125-K  
5 Axis  
CNC Machining Center**



**Proposed to:**

**AW CARTER**



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## **1. Model Pro Master - 7125-K**

HOLZ-HER U.S. Inc., the industry leader in product quality and customer support, is proud to present the latest in CNC machining technology: the HOLZ-HER PRO-Master 7125-K CNC Machining Center.

The HOLZ-HER PRO-Master 7125-K represents the most advanced CNC technology and the best service and support programs in the woodworking industry.

### **1.1 BASE DESIGN**

The PRO-Master 7125-K is a heavy-duty machining center that is capable of handling the toughest routing and shaping requirements as well as the fast and precise drilling requirements of the most demanding wood shops. This is due to the basic design of the PRO-Master which incorporates a heavy-duty frame construction with the proven solid arm stationary “Y” axis support arm design.

Both the machine base and support arm are manufactured from heavy gauge steel, normalized after welding. The normalizing process will relieve any stress in the metal prior to further machining operations insuring very accurate drilling for guide way placement. This design also requires much less floor space behind the machine in comparison to other designs.

The heavy-duty frame and the rigid arm design provide for vibration free machining as well as for full support of the head movement through out the entire machining cycle. This is most important at the outermost points of the machining cycle. When the machining center is machining at the front of the work envelope the rigid arm design provides full support of the working units while also minimizing the unsupported overhung load.

### **1.2 BEARING GUIDES AND BALL SCREWS**

The HOLZ-HER PRO-Master 7125-K utilizes the latest in linear motion technology.

- Bosch-Rexroth high precision guide ways are used on all three axes X, Y, and Z along with the vertical movements of the router motors. Bosch-Rexroth brand guide ways are designed to provide the utmost accuracy and repeatability while minimizing vibration when moving heavy masses at high rates of speed.
- The preloaded bearings are four row circulating type bearings for maximum speed and life. The high precision bearings also have double lip grease and dust seals providing years of service.



Fast & Precise positioning in the X and Y axis by means of Rack-and-Pinion drive system.

Matched sets Bosch-Rexroth brand ball screws and nuts control the movement of the Z-axis.

Z-Axis Ball Screw Diameter – 20 mm

X Axis Speed 120 meters/ 4,724 inches per minute

- The diameters of the ball screws on the HOLZ-HER PRO-Master 7125-K are unequaled by any other machine in its class. All high quality machinery builders regardless of their industry recognize precision ground and hardened ball screws with matched nuts as the premier system for positioning machine positioning. The screw and nut are a matched set eliminating any potential for backlash problems, this allows for reliable part machining and repeatability over the life of the equipment.

### **1.3 SERVO MOTORS**

The movement of the head is controlled along all three axes by heavy-duty brushless drive motors, driven by a matched digital driver. Solid State electronics will produce a more constant output of torque resulting in faster speed with more reliability.

The Direct Drive coupling provides for faster acceleration and more precise positioning than previous ball-nut drive systems



### 1.4 WORK ENVELOPE

The work envelope of approximately 3,155 mm x 1,351 mm (124"x 53") allows the utmost in machine flexibility and part application. The vertical stroke of 565 mm (22.24") gives the HOLZ-HER PRO-Master - 7125 customer maximum flexibility for machining large parts.

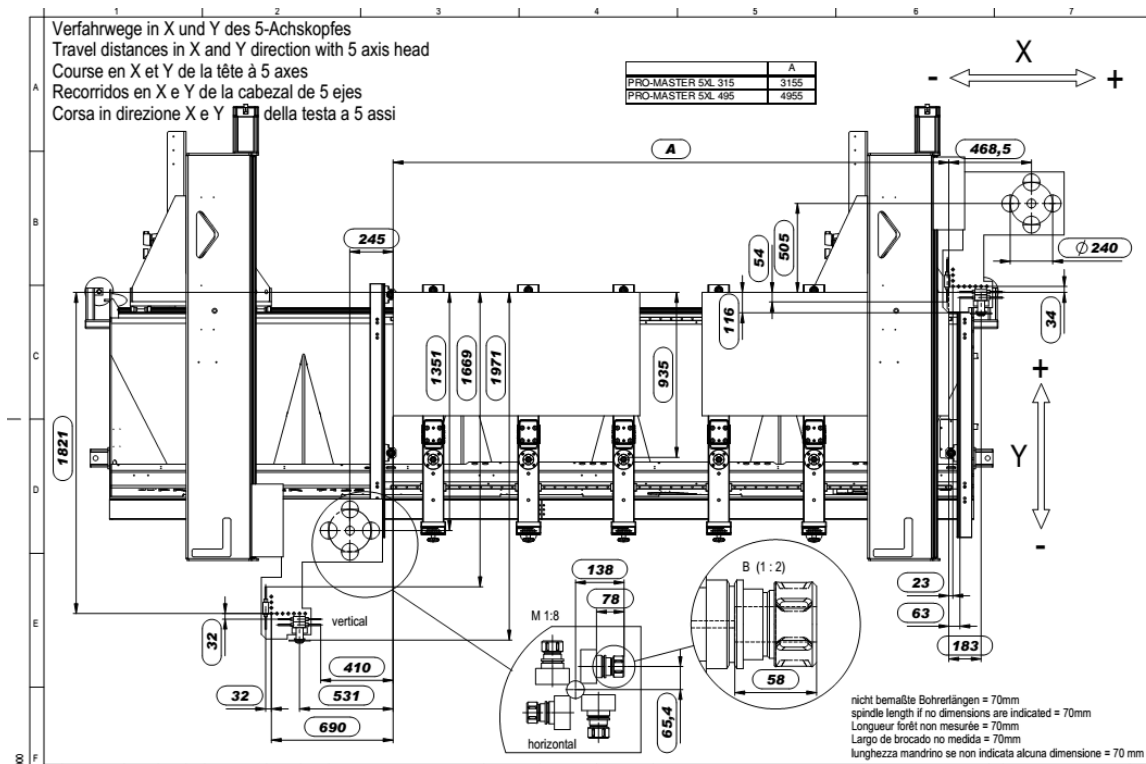
**Vertical Boring Pattern Dimensions:** X-axis Maximum 3846 mm (151.4")

Y-axis Maximum (all drills) 1821 mm (71.69")

**Router Working Dimensions:** X-axis Maximum 3622 mm (142.60")

Y-axis Maximum 1350 mm (53")

**Z Axis Clearance:** From spindle nose -203mm/362 mm (8.00/14.25 in)





### 1.5 SPINDLE AND BORING HEAD

- The HOLZ-HER PRO-Master 7125-K is provided with a 16 HP (12 kW S-6) liquid-cooled electro-spindle and utilizes an HSK-63F tool connection. The electro-spindle is a 0-24,000 RPM variable speed motor, left hand or right hand rotation controlled by the computer.

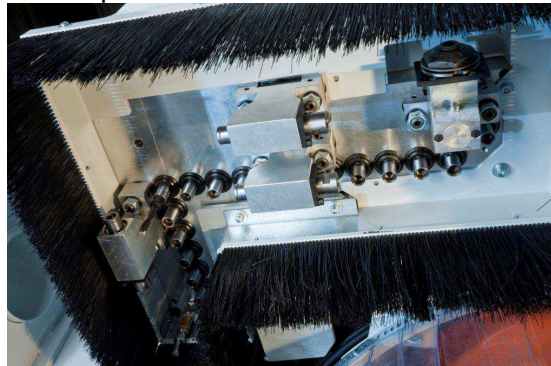


C axis +-360 degrees

A Axis +-180 degrees

### **DRILL HEAD**

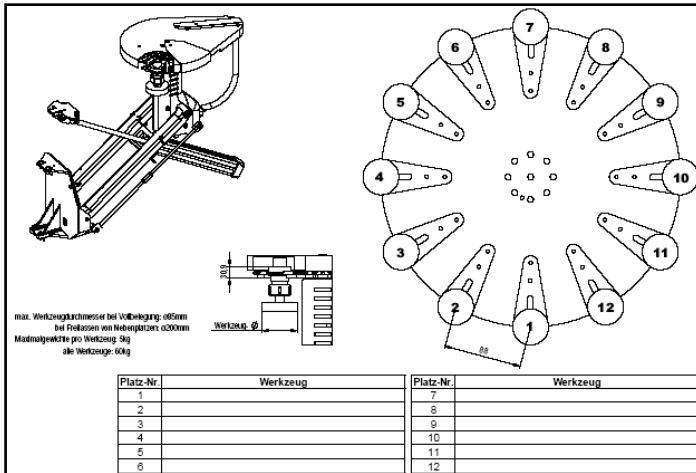
- The HOLZ-HER PRO-Master 7125-K boring head configuration is a 18 vertical independent spindle-boring block, 13 in the X-axis and 6 in the Y-axis that also includes 4 horizontal spindles in the X-axis as well as 2 in the Y-axis.



- These drill spindles are driven by an independent 4 HP (3 kW) motor at 5710 rpm for fast chip removal and increased tooling life



## 1.6 AUTOMATIC TOOL CHANGER



The twelve (12) position tool changer moves in the X-axis, riding along with the rigid arm, in combination with the electro-spindle.

The twelve (12) position rotating type tool changer with HSK shank connector allows the PRO-Master machining center to shorten typical cycle time as well as allowing the operator to continue to load and unload the idle work zone without interference from the tool change.

This feature eliminates the requirement of having to shut down the idle work zone during a tool change.

The HSK F63 Cone Tool Holders **12-included as standard** allow the customer the option of changing the tools quickly by hand with the push of a button or allowing the tool change to occur during the machining cycle automatically via the program.

### Electronic Tool Touch Off Device

System for the detection of tool length or breakage

Precise and fast length detection and automatic adjustment of tool length in tooling data

Accuracy approximately 0.1mm

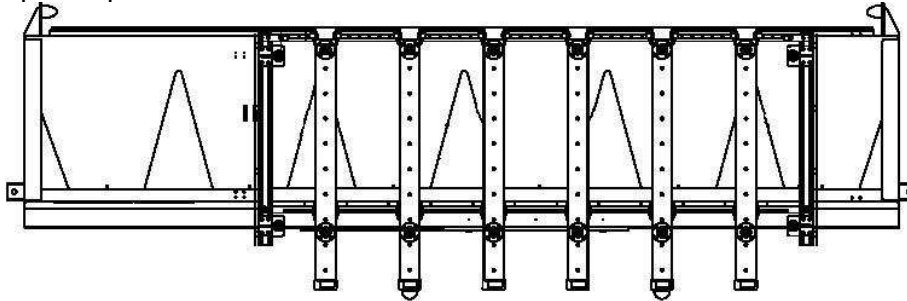






## 1.7 THE WORK ZONES AND SAFETY EQUIPMENT

The work envelope of the HOLZ-HER PRO-Master 7125-K is divided into four independent working zones (left/right/front/back), each comprised of 4 pneumatically controlled pin stops .



(6) Six self contained vacuum consoles, (4) four lifting blades and twelve (12) vacuum suction pods are provided for firm and full part support over the table.



The vacuum pods hold the part above the worktable thus allowing the machine to *route or shape all the way around the part without routing through the rails* as well as providing a level, precision work surface to insure accuracy.

The vacuum pods are freely moveable on the heavy duty rails to allow for quick set-up, in addition, a laser pointer is provided as standard to insure proper placement of vacuum pods by the CNC program, to eliminate interference of the vacuum pods during the machining cycle.

### **Safety Equipment:** (provided as standard)

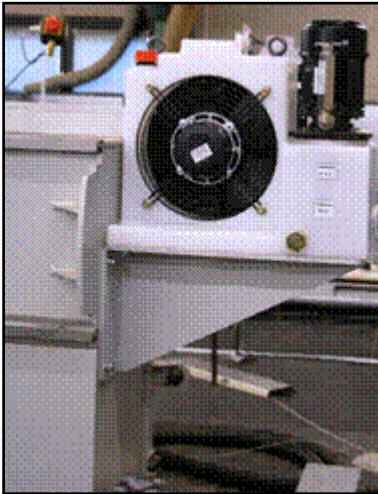
- Safety foot mats in working area
- Safety Casing in accordance with CE Regulations
- Side and rear mesh-grid frames, including door with safety switch.
- Hand held control unit
- Automatic lubrication system for all axis and guideways
- Heat exchanger for electrical cabinet





## **1.8 THE VACUUM SYSTEM**

The vacuum hold down is accomplished with a Becker 140m<sup>3</sup>/hOil-Less Vacuum Pump



Spindle cooling is produced by liquid cooling unit mounted on the back side of spindle support



## 1.9 THE CONTROL UNIT

The control unit on the HOLZ-HER Pro-Master is a Beckhoff TwinCat CNC Controller with PC control, CPU Intel Core i3-2120 3,3 GHz. SSD 120 Gb Windows 7 Professional 21" Flat Screen Monitor, Keyboard and Mouse with Network Capabilities



The PC-based, Windows 7 operating system provides for ease of use as well as flexibility in integrating the machine into a true CAD-CAM environment. It is equipped as standard with a 21" TFT flat screen color monitor, 3.5" disk drive CD-ROM / CD-RW drive (CD burner). USB connector.

The software provided with the machine will allow it to elaborate DXF files generated from common

CAD systems and the integrated CAM package will allow the elaboration of these DXF files into machine programs seamlessly. The software will also allow the customer to create his own programs without a CAD program at the machine or in the office. The machine comes standard with a key and office software that will enable the customer to install the software on his office PC and generate programs in the office and then transfer them to the machine.

The CAMPUS software package is consisting of:

### **CAMPUS NC-HOPS V.6**

Variant graphics system with WOP and CAD/CAM properties for creating parts variants using macro technology

### **CAMPUS aCADemy**

Independent 2-dimensional CAD program for free constructions and import and/or export of various formats

### **CAMPUS MT Manager**

Complete graphics-based tool management with display of the tool cabinet, of all the installed units and of the current equipment on the machine

### **CAMPUS Workcenter**

Used for the simple and rapid, graphics-based assignment of the machine table by means of drag & drop





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## **1.10 CAMPUS SOFTWARE DESCRIPTION**

### **CAMPUS NC-HOPS V.6**

Variant graphics system with WOP and CAD/CAM properties for creating parts variants using macro technology

#### **Program operation**

- Windows-compliant interface and user guide
- Key combinations known from Windows for the most common program commands such as, for example, copy, insert, cut, delete
- All functions can be called up from one level or selected from drop-down menus
- A number of programs can be edited at the same time by free arrangement of all program windows (overlapping in the horizontal or vertical direction, etc.)

#### **Programming**

- Extremely simple operation by means of dialog masks and pre-set macros
- Supporting geometry for defining and using for example: points of intersection, tangents, angles, etc.
- Variable drawing and dimensioning functionality with the option of printing out for checking or reworking purposes
- Programming of the component optionally in 2-D or 3-D view with display of the machining operation and of the tools
- Option of programming partial ellipses, dynamic ellipses (number of arcs varies depending on size, crossovers in the tangential direction)
- Option of free definition of machining levels for defining adjustment machining operations on surfaces (multiside machining up to 5 axes)
- Tool selection by means of a specially stored image of the corresponding tool

#### **Macro/variant programming**

- User-specific interface configuration by free definition of system commands and expansion of typical definitions incl. icon reference and auxiliary drawings of the dialog masks
- Implementation and grouping of customer-specific macros in the program interface as a space-saving drop-down menu
- Free definition of variables in macro programming with interrogation window for all programmed variable values per macro for adaptation to varying workpiece dimensions for the same machining operations
- With multiple tool allocation for just one programmed machining contour
- With integrated debug mode, for step-by-step checking of individual programmed macros or entire machining steps
- Readable editor structure by means of the targeted introduction of user-oriented note definitions. Special machining operations (self-created macro definitions) or important additional information can thus be interpreted by each user and sources of error can be reduced.
- Individual programmed machining operations can be activated or deactivated by showing and removing program lines



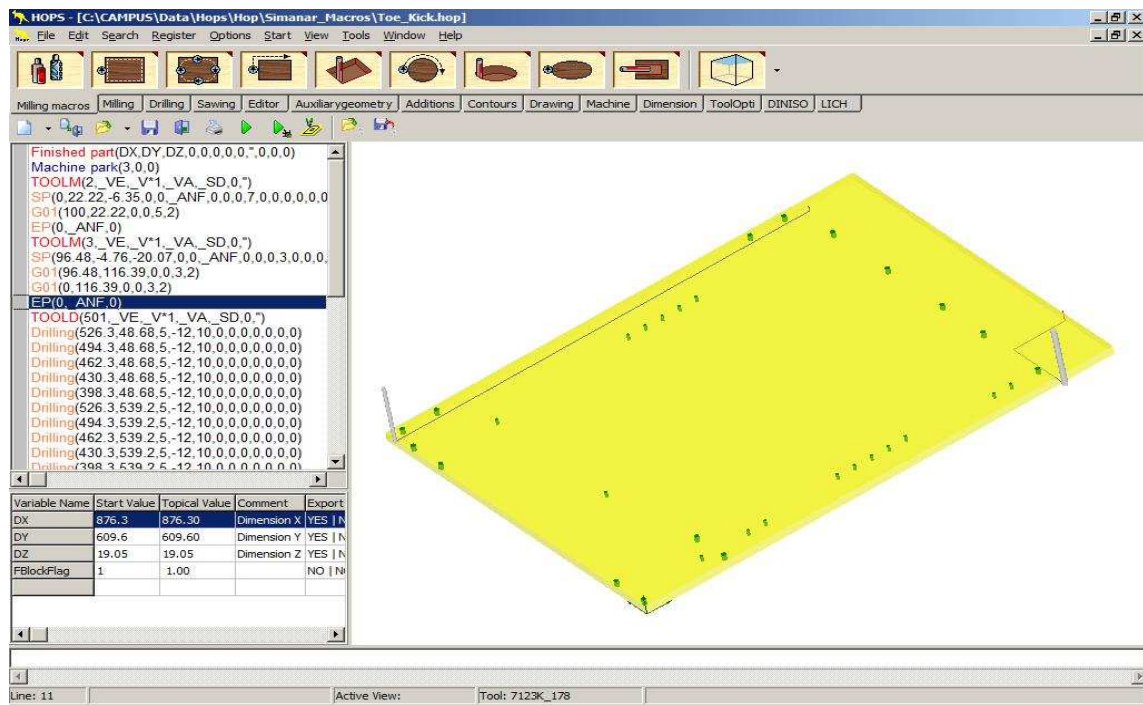
## CAMPUS NC-HOPS V.6-continued

### Display and simulation mode

- Clear visualization by means of a realistic 3D display of the components and of all the machining operations (back and forth movements, tool compensation with tool display during component definition)
- 3D process simulation with visual display of tool optimization

### Program compatibility

- Open software architecture, and thus customer-specific adaptations at all times for best system integration into operational procedures
- Machine-neutral, neutral workpiece macros - at the press of a button NC program for other machines
- Export and import option for all variable values
- Possibilities for connection to a wide range of subsidiary programs window, step, corpus software, etc.

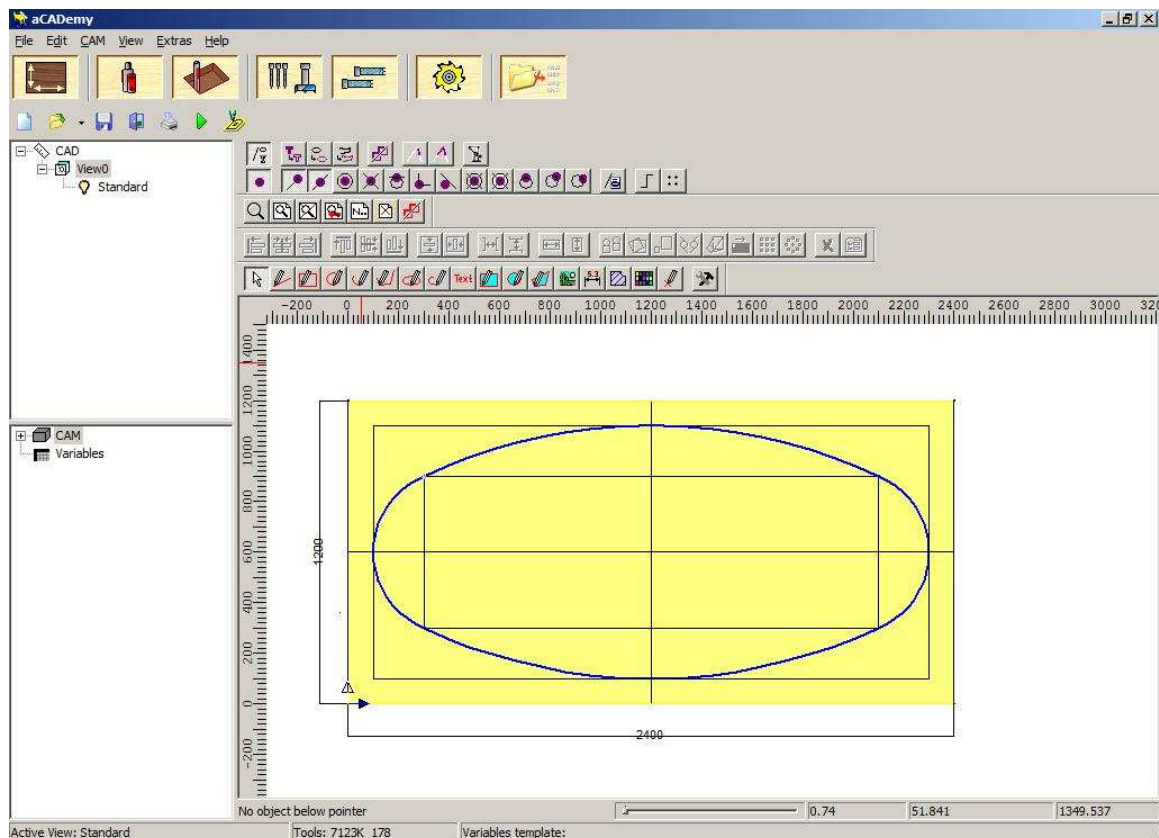




## CAMPUS aCADemy

Independent 2-dimensional CAD program for free construction and import and/or export of various formats

- Construction possibilities for circle, arc, polyline, hatching, dimensioning, etc.
- Geometry adaptation via scaling, rotation, trimming, rounding, beveling, etc.
- Extremely simple construction possibilities by a wide range of object reference points such as e.g. end points, center points, center, tangents, points of intersection, etc.
- Free-form pockets with automatic island detection (taking account of programmed contours within the free-form pocket)
- Clearly separate CAD and CAM areas and also a clear tree structure for managing the machining operations
- Integrated DRW, DXF and DWG import
- DXF and DWG export to other CAD programs, with the option of presetting CAD versions. A specific data transfer of all machining operations can thus be ensured

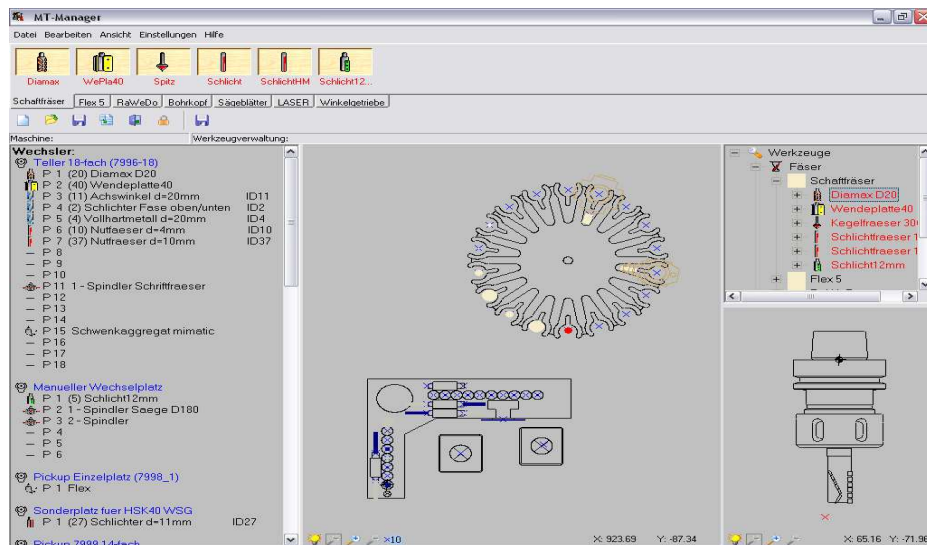




## CAMPUS MT Manager

Complete graphics-based tool management with display of the tool cabinet, of all the installed units and of the current equipment on the machine

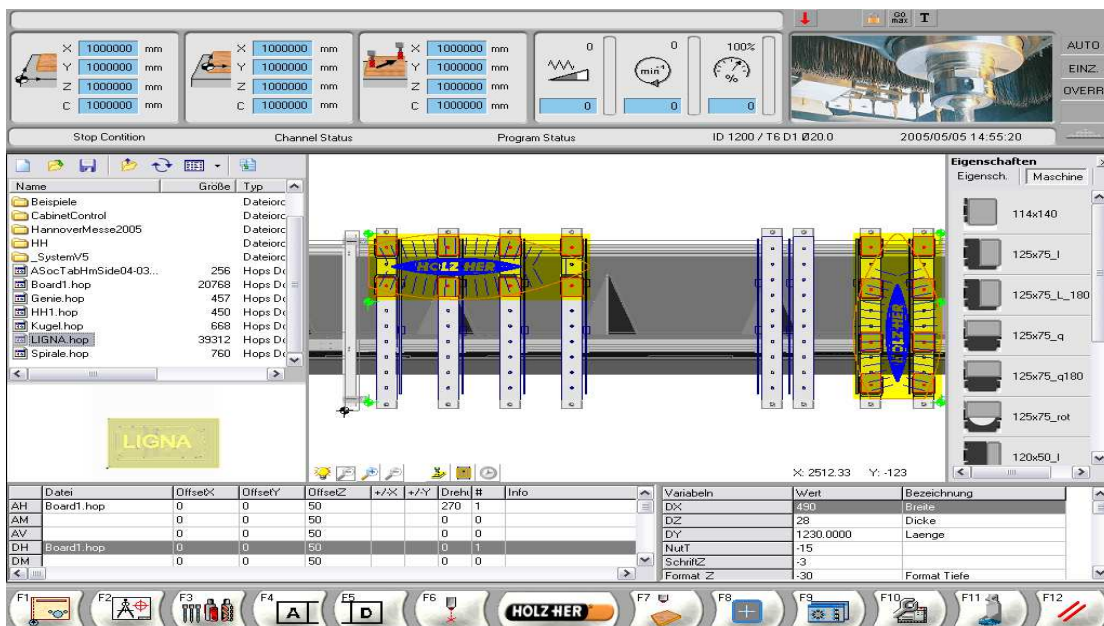
- Graphic display of tool assignment
- Graphic display of the unit head
- Graphic display of the tool changers
- All tools can be stored along with technology data, correction memory and tool-specific safety criteria.
- Tool assignment by means of drag & drop
- Individual memory option, either of the entire tool cabinet or of individual tool data or angular gear data
- Option of setting the level of security by password protection for certain areas in order for example to prevent unwanted changes to tool data



## CAMPUS Workcenter

Used for the simple and rapid, graphics-based assignment of the machine table by means of drag & drop

- Program selection by means of preview graphics
- Graphics-based preparation of the machine
- Display of machine, consoles and suction pads as a bit map, as a linear display or as a combination of bit map/linear display
- Rapid and efficient calculation of suction pad and console position with a nominal dimension display for preparing the machine
- Storable machine assignment with corresponding console and suction pad position for machining operations that are to be repeated
- Rotatable suction pads are displayed in the correct rotational position
- All variable values are visible at all times and can be edited separately in relation to the respective stop
- Workpiece changes (dimensions, offset, mirroring, rotation) even when the workpiece is on the machine.
- Consoles and suction pads automatically adapt to the changes
- Generation of programs which cover the whole table (tool optimization)
- Different parts are processed on the machine not one after the other, but rather in parallel. That is to say that a tool is not changed until all machining operations using said tool have been carried out on all parts.
- Simulation in 3-D view which covers the whole table
- Real-time calculation with indication of e.g.: overall time, pure machining time, use time of individual tools, tool change time, etc.



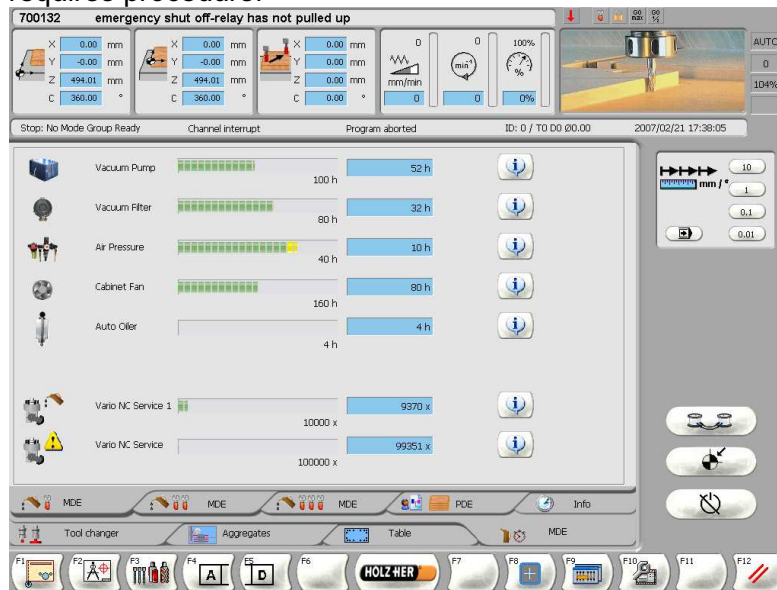


## CAMPUS Maintenance Reporting

Campus has taken a number of standard maintenance requirements and through the CNC control tracks the time intervals,

If a maintenance item has reached its schedule an icon is activated on the screens tool bar alerting the operator that it is time to perform a specific maintenance item.

A help button will take the operator to a .pdf file detailing instructions to perform the requires procedure.



HOLZ-HER does not provide anti-virus protection software on the CNC machine, it is highly recommended that you install your company's anti-virus software on your network and all CNC programs should be checked for any virus prior to sending any program to the CNC machine. If anti virus software is loaded directly on the CNC machine, HOLZ-HER cannot guarantee proper communication between the PC and machine.



## **2. TECHNICAL DATA**

### **2.1 STANDARD ITEMS INCLUDED WITH BASE MACHINE**

- Solid welded machine frame with ground prismatic guide system
- Rack & pinion drive in X and Y axis, ball screw drive system in Z-axis
- Work piece support with 6 consoles, pneumatically clamped
- 16-Pop-Up Pin Stops  
(2 per console front/back-4 –Y axis freely position able)
- 12 Hose less Vacuum Pods- Specify Size
  - 114 mm x 140 mm Vacuum Pods
  - 125 mm x 75 mm (Y) Vacuum Pods
  - 125 mm x 75 mm (X) Vacuum Pods
- 2 large push buttons for clamping and releasing of work pieces
- 2 measurement tapes for console positioning in X-direction
- 2 holders for spare suction cups
- 2 measurement tapes for suction cups in Y-direction
- 6 Aluminum Consoles with Self Contained Vacuum
- 4 Lifting rails, pneumatically controlled, for positioning work pieces
- 16 HP Liquid Cooled Router Head (12 Kw) 0-24,000 RPM HSK-63F
- 12-Position Rotary Tool Changer traveling with the head
- Vacuum pump 140 m<sup>3</sup>/h with liquid cooling
- Safety Cage as per CE-rules including door and safety switch
- Safety tread mat
- Automatic central lubrication for all linear guides in X, Y, and Z
- Transformer for 230V/60
- Cooling Fan for electrical cabinet
- HSK F63 Tool Holders (12 each)
- (12) 1/2 Inch collets for tool holders
- Drill Bit Adapters (10 mm) - Left (9 each)
- Drill Bit Adapters (10 mm) - Right (9 each)
- Hand held control unit
- Bar Code Scanner complete with scanner gun, software and interface
- Laser pointer for positioning of the vacuum cups
- 360 degree endless C-Axis
- +- 180 Degree A-Axis



## **2.2 CONTROL FEATURES PROVIDED AS STANDARD**

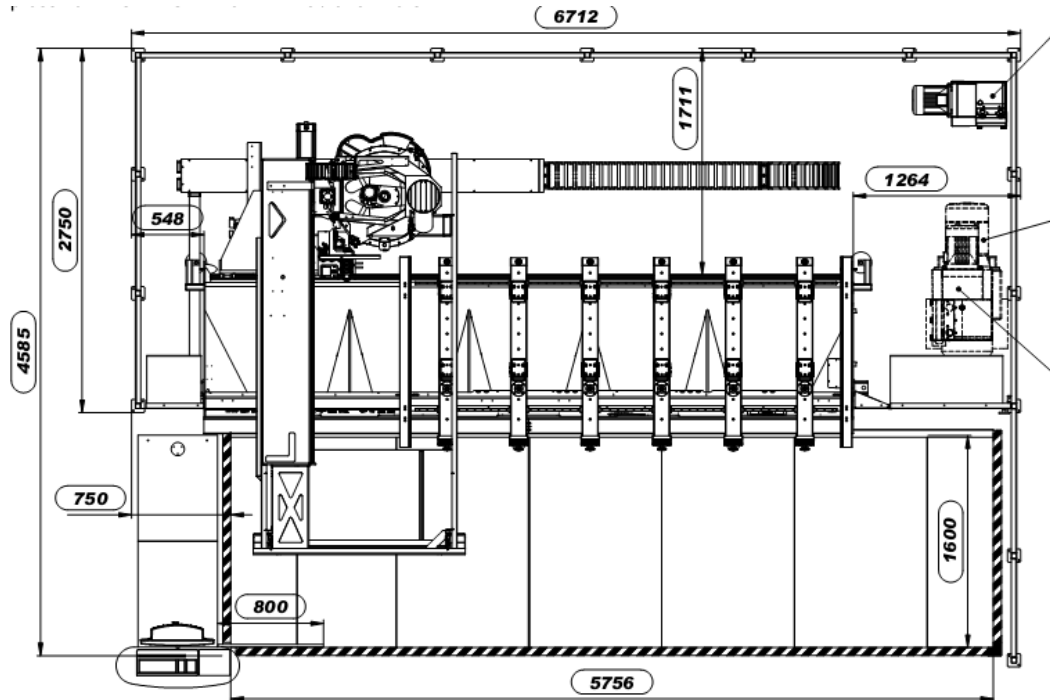
- PC control panel with 21" TFT Flat Screen
- 360 degree swivel/tiltable
- Dust Proof, Anti-Reflectable Glass
- Integrated 56K remote maintenance modem
- 3.5" Disk Drive CD-ROM/CD-RW Drive
- External USB Port
- CAMPUS Software-operating under Windows 7
- CD-ROM with software CAMPUS for the PC in the office;
- Beckhoff – TwinCAT Control digital and compact - control unit
- 2 Phase Software and Machine Operation Training at HHUS

## **2.3 SPECIFICATIONS**

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Displacement Travel (X-axis):      | 4313 mm (169.8")                      |
| Displacement Travel (Y-axis):      | 1856 mm ( 73")                        |
| Displacement Travel (Z-axis):      | 565 mm ( 22.24")                      |
| Longitudinal speed, max. (X-axis): | 120 m/min (4,724 "/min)               |
| Transversal speed, max. (Y-axis):  | 100m/min (3,937"/min)                 |
| Z-axis speed:                      | 25 m/min (984"/min)                   |
| Drill spindle speed:               | 5,710 rpm                             |
| Vertical Drill Length:             | 70 mm x 10mm shank (9) RH (9) LH      |
| Horizontal Drill Length:           | 57 mm x 10mm shank (2) RH (2) LH      |
| Standard electrical supply:        | 220-242v 60 HZ (UL/CSA)               |
| Dust Extraction:                   | min. 5,300 m <sup>3</sup> /h          |
| Dust Collection Port Sizes:        | 1 - 250 mm; Extraction speed – 30 m/s |
| Operating Air Pressure:            | 6-7 bar 90-100 psi                    |



## 2.4 INSTALLATION



A factory-trained technician will install your PRO-Master 7125-K. Once the machine is in place and the necessary utilities have been brought to the machine, the technician will level and bring the machine to a ready to run state. The technician will then instruct the machine operator and any other operators (max.3) on how to maintain and operate the machine properly.

**The installation and training are scheduled for 5 days, including technicians travel.**

Once the training and the maintenance instruction are completed and the machine is in the ready to run state the installation is complete. The HOLZ-HER machine technicians are not responsible for networking or assistance in third party software issues. Assistance with networking may be obtained either from the supplier of the network software or from our SmartSource service, with related fees.



## **2.5 TRAINING**

### ***Training takes place in two phases***

The first session will be for the training on the machine software, which will take place at HOLZ-HER U.S. Inc. in Charlotte NC and requires 5 days of attendance.

Tuition to this school for a maximum of 2 employees is included in the cost of the machine, traveling is at clients charge.

Attendance is required prior to the machine installation.

The second session will be completed at the customer's location during the installation. The installation and training will be scheduled for one week, including technicians travel. A maximum of three employees will be accepted to this session. The technician will test run, adjust as necessary, demonstrate and instruct the employees to operate and maintain the machine.

The cost of both phases of training is included in machine purchase price.



### 3. PRICE PAGE

Quoted to: **AW CARTER**

| Model PRO-Master - 7125-K CNC MACHINING CENTER  | PRICE U.S.\$  |
|---|---------------|
| Complete Standard Machine Price   | \$ 174,900.00 |
| Special Price To AW CARTER  | \$ 167,400.00 |
| 16 Hp Liquid Cooled Spindle   | INCLUDED      |
| 5 Axis 360 degree C/+110 degree A axis  | INCLUDED      |
| 24 Position (18/v-6h) Drill Block   | INCLUDED      |
| 12 Position Rotary Tool Changer   | INCLUDED      |
| Laser For Console and Pod Positioning   | INCLUDED      |
| 140 c/m Vacuum Pump   | INCLUDED      |
| Full Campus Software Suite  | INCLUDED      |
| Installation & Training   | INCLUDED      |
| <p>Lease with HOLZ-HER EZ-Lease and by-pass the terms stated below.<br/>With EZ-Lease machine funds after the installation is complete.</p> |               |
| <p><b>TERMS:</b> 30% with order<br/>60% Prior to shipment<br/>10% At install or 30 days after arrival, first to occur</p>                   |               |
| <hr/>   |               |
| Offer Accepted by/Title   | Date          |
| <p><i>* Quoted price is F.O.B. Charlotte, NC .</i><br/><i>* Price does not include applicable taxes and is valid for 30 days.</i></p>       |               |

**The Terms and Conditions of Sale pertaining to this quote are printed on the previous pages.**

**NOTE:** All machines are built to UL/CSA standards but are **NOT** UL approved. Local electrical requirements vary widely and may require inspection by an independent agency. The cost of any inspection will be the responsibility of the customer.

The customer shall be responsible for all items on the Pre-Installation Checklist including the following:

1. Floor preparation (concrete work, etc.)
2. Connections to power supply
3. Electrical ground
4. Dust extraction
5. Pneumatic connections (proper air supply)
6. Labor force and handling equipment (crane, forklift, etc.) to unload, uncrate and position the machine
7. Materials needed for testing and final adjustment of the machine. (panel stock, edgebanding, glue, etc.)

NOTE: Machine specifications subject to change without notice.  
VERSION 7.8

Initials \_\_\_\_\_



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## **HOLZ-HER TERMS AND CONDITIONS**

1. **Acceptance.** Except as otherwise provided on the agreement signed by the customer and HOLZ-HER, this sale by HOLZ-HER, ("HOLZ-HER") is governed by these terms and conditions of sale only. All terms to the contrary and all additional terms and conditions of purchase or sale stated in Buyer's purchase order or any other commercial documents prepared by Buyer have been and are hereby rejected.
2. **Minimum Billing/Handling Charge.** \$35.00 is the minimum charge on all parts orders. Orders under \$100.00 will have a \$5.00 handling charge added.
3. **Price.** Unless otherwise agreed, prices are F.O.B. HOLZ-HER Warehouse (UCC Terms). Charlotte, N.C. Prices do not include installation, training or set-ups.
4. **Taxes.** Prices do not include sales, use, excise, privilege, or any similar tax levied by any government body, and any such taxes shall be paid by Buyer. Buyer shall upon request provide HOLZ-HER an applicable tax exemption certificate.
5. **Cancellation/Changes.** Orders accepted by HOLZ-HER are not cancelable without the written consent of HOLZ-HER. Down payments are not refundable and, in the absence of an agreement to the contrary, upon Buyer's cancellation will be retained by HOLZ-HER as liquidated damages in lieu of other remedies. Mathematical or clerical errors may be corrected by either party.
6. **Delivery.** Unless otherwise agreed, all deliveries are F.O.B. HOLZ-HER' warehouse (UCC Terms). Delivery and Installation schedules represent estimates only and are subject to timely receipt of all necessary instructions, licenses, letters of credit, deposits, etc. Partial deliveries are permissible. Related software may be delivered separately. HOLZ-HER will not be liable for any delay, or for any damages suffered by reason of delay. Delivery is subject to Buyer maintaining credit satisfactory to HOLZ-HER. HOLZ-HER may suspend performance or delivery at any time pending receipt of assurances, adequate to HOLZ-HER in its discretion of Buyer's ability to pay, including full or partial prepayment. Failure to provide such assurances shall entitle HOLZ-HER to cancel this contract without further liability or obligation to Buyer.
7. **Payment.** Unless otherwise agreed, all parts purchases are C.O.D. For machines, 30% of the purchase price shall be paid upon execution of the quotation or purchase order. An additional 60% shall be paid by the Buyer just prior to shipment of the product from HOLZ-HER or U.S. Customs. The remaining 10% shall be paid upon completion of installation or within 30 days of delivery, whichever occurs first, without delay. Completion of Installation occurs on the earlier of the customer beginning to use the machine or signing the delivery and acceptance certificate. Invoices not paid within thirty (30) days after their due date will accrue interest at the rate of one-and-one-half percent (1½%) per month until paid in full. Buyer shall pay all costs of collection, including reasonable attorney's fees, of any overdue amount owed. Buyer may not hold back, delay, or set-off any amounts owed to HOLZ-HER in satisfaction of any claims asserted by Buyer against HOLZ-HER.
8. **Product Leases.** Product leases may be arranged between Buyer and an Equipment Lessor. In such event, these terms and conditions govern the relationship between HOLZ-HER and such Lessor as well as HOLZ-HER and Buyer. If Buyer does not sign a delivery and acceptance certificate within 10 days of the commencement of installation (meaning that the Product and an authorized technician has arrived at Buyer's premises), then Buyer and such Lessor shall be deemed to have rejected the Product and HOLZ-HER shall have the right to disable and/or remove and repossess the Product from Buyer's premises.
9. **Risk of Loss.** All risk of loss to Products sold shall pass to the Buyer upon delivery by the Company of such Products to a common carrier.
10. **Limited Warranty.** HOLZ-HER does not warrant Software Products, any warranty from Software Products comes directly from the software developer. Other than Software Products, HOLZ-HER warrants that the Products sold to Buyer will be free from defects in materials and workmanship for one year after the date of delivery to Buyer, normal wear and tear excepted. This means that the Product was manufactured in accordance with HOLZ-HER standard practices and is subject to normal manufacturing tolerances. In addition, except as otherwise provided herein, HOLZ-HER warrants that for a period of one year, the Product will perform in accordance with the Product Specifications published by HOLZ-HER for the particular version of the Product purchased by the purchaser. In satisfaction of this warranty, HOLZ-HER will repair or in its sole discretion replace any Product or part thereof found to be defective during such period as follows: For a period of one year after the installation of the Product, HOLZ-HER will provide free replacement parts for any part found to be defective.

In addition, for a period of 6 months after installation, if HOLZ-HER installed the Product, HOLZ-HER will also provide, free of charge, the labor necessary to install such part or effect such repair. If HOLZ-HER did not install the Product, then all repair work must be arranged on standard terms. If in HOLZ-HER's judgment the Product cannot be repaired or replaced, the Product shall be returned to HOLZ-HER and HOLZ-HER shall refund the purchase price (exclusive of freight, installation, and financing charges).





Dealers and salesman are not authorized to offer warranties greater than or in addition to those described above. Descriptions, representations, and other information in advertisements or other promotional materials or statements or representations made by sales agents or representatives shall not be binding upon HOLZ-HER and shall not be part of this limited warranty unless expressly identified in writing as Product Specifications.

This limited warranty does not cover normal maintenance or items consumed during normal operation, nor normal wear and tear, use under circumstances exceeding specifications, abuse, unauthorized repair or alteration, moving of the Product, lack of proper maintenance or damage caused by natural causes such as fire, storm, or flood. Tooling is considered to be a normal maintenance item and is not covered by this warranty. This limited warranty is Buyer's **exclusive remedy**. It shall not be deemed to have failed of its essential purpose so long as HOLZ-HER is willing and able to repair, replace, or accept return and refund of defective Products in the manner specified. This limited warranty terminates if Buyer defaults on making payments for the Product covered. Proper use of the Product will require customer supplied electricity, dry air supply, dust collection, foundation, etc. in conformance with HOLZ-HER specifications. Use of electricity, air supply, dust collection, foundation or other customer supplied items outside of HOLZ-HER specifications will void this warranty.

**THE FOREGOING WARRANTY IS THE ONLY WARRANTY HOLZ-HER MAKES AND IS IN LIEU OF ALL OTHER WARRANTIES. HOLZ-HER EXCLUDES AND DOES NOT MAKE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY WHATSOEVER, WHETHER EXPRESSED OR IMPLIED. NO WARRANTIES SHALL ARISE FROM A COURSE OF DEALING OR USAGE OF THE TRADE.**

11. **Limitation of Liability.** Any action by Buyer under or relating to this Agreement or the Products sold must be commenced within one (1) year after such cause of action has accrued. **IN NO EVENT SHALL HOLZ-HER BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PRODUCTION OR LOST PROFITS AS A RESULT OF THE SALE OR SERVICE OF THE PRODUCT OR OTHERWISE. HOLZ-HER'S LIABILITY SHALL IN NO EVENT EXCEED THE AMOUNT PAID BY THE BUYER FOR THE PRODUCT.**

12. **Claims.** Within ten (10) business days after completion of installation of Products sold, Buyer must give written notice to HOLZ-HER of any claim by it based upon the condition, quantity, or grade of the Products sold or of any claimed nonconformity with Buyer's specifications, which notice must indicate the basis of Buyer's claim in detail. The failure of Buyer to comply with this paragraph shall constitute irrevocable acceptance by Buyer of the Products delivered and shall bind Buyer to pay HOLZ-HER the full price of such Products.

13. **Safety Devices.** In operating or using the Products, Buyer shall follow all procedures and warnings, if any, recommended by HOLZ-HER at any time before or after sale. Buyer shall ensure that all persons authorized to use the Products have been adequately trained. Buyer shall not remove any warning labels or safety devices, and shall immediately cease use of the machine in the event a safety device becomes damaged or removed. Should Buyer fail to do any of the above, or if Buyer shall fail to maintain the products in accordance with HOLZ-HER' recommendations, Buyer will indemnify and hold *HOLZ-HER* harmless from any risk, liability, or obligation to persons injured directly or indirectly as a proximate result of such failure.

14. **Security Agreement.** Buyer hereby grants to HOLZ-HER a continuing purchase money security interest in all Products sold and/or delivered to Buyer and to the proceeds thereof. Buyer shall execute and deliver any financing statements and other documents that HOLZ-HER may reasonably require for the perfection of such security interest and Buyer hereby authorizes HOLZ-HER to do all other acts reasonably necessary for the establishment, perfection, preservation, and enforcement of its security interest. Buyer shall maintain adequate insurance while security interest is in effect.

15. **Arbitration.** All disputes and controversies that arise between the parties shall be referred to binding arbitration to be held in Charlotte, North Carolina in accordance with the then current Rules of Commercial Arbitration of the American Arbitration Association. Unless otherwise agreed to by the parties in writing, the dispute shall be heard and decided by a panel of three (3) neutral arbitrators. The award of the majority shall govern. Each party shall have the right by giving written notice to the other party to refer the dispute to arbitration at any time without recourse to common or commercial courts. The parties also agree that the AAA Optional Rules for Emergency Measures of Protection shall apply to the proceedings. The award rendered by the panel may be judicially enforced by any court of competent jurisdiction. In reaching a decision, the arbitrator(s) shall decide in accordance with the terms of the Agreement between the parties and shall have no authority to change, modify, add to or subtract from any provision of the Agreement between the Parties. If the answer to the dispute is not found within the terms of the Agreement, the arbitrator(s) shall apply the laws of the state of North Carolina to resolve the dispute. Notwithstanding the laws of North Carolina, the arbitrator(s) shall in no event award punitive, treble or exemplary damages.



## **5. OPTIONAL TOOLING PACKAGE**

Part Number T-8005214

| Qty. | Description   |
|------|---|
| 2    | 8 mm Boring Bit, 10 mm shank, 70 mm overall length, right hand rotation   |
| 1    | 8 mm Boring Bit, 10 mm shank, 70 mm overall length, left hand rotation    |
| 1    | 3 x 70 mm Solid Carbide Drill Bit, Right Hand                             |
| 1    | 3 mm Drill Bit Adapter, 10 mm Shank                                       |
| 1    | 35 mm Boring Bit, 10 mm shank, 70 mm overall length, right hand rotation  |
| 6    | 5 mm Boring Bit, 10 mm shank, 70 mm overall length, right hand rotation   |
| 6    | 5 mm Boring Bit, 10 mm shank, 70 mm overall length, left hand rotation    |
| 3    | 8 mm Boring Bit, 10 mm shank, 57.5 mm overall length, left hand rotation  |
| 3    | 8 mm Boring Bit, 10 mm shank, 57.5 mm overall length, right hand rotation |
| 1    | 90 Degree Solid Carbide Engraving Tool, 1/2" Shank                        |
| 2    | 1/4" Downshear, 3/4" Cut Length, 1/4" Shank, 2 1/2" overall               |
| 1    | 1/2" Compression Spiral, 1-3/8" Cut Length, 1/2" Shank, 3" Overall        |
| 2    | 1/2" Downshear, 1-1/4" Cut Length, 1/2" Shank, 3" Overall                 |
| 1    | 3/8" Compression Spiral, 1" Cut Length, 3" OAL, (.200 upshear)            |
| 2    | 1/4" collet SYOZ or RDO35   |
| 1    | 3/8" collet SYOZ or RDO35   |
|      |   |
|      | <b>TOTAL TOOLING PACKAGE \$ 950.00</b>                                    |



## Optional Tool Set-Up System



**Digital Height Gauge**

- Large knob for coarse and fine adjustment.
- Dual chrome plated beams.
- Large easy to read LCD display.
- Direct inch/metric conversion
- Resolution .001"/.01mm
- Scriber is carbide tipped and is secured with a clamp.
- Includes locking lever.
- Base lapped for extreme flatness
- Hold function.
- Tolerance function.



**Tool Tightening Stand**

- Constructed of precision machined anodized alloy
- Outstanding strength, speed, and durability
- Securely bolts right on CNC Machine or workbench

828.0001 Digital Height Gauge  
 828.0002 Tooling Plate  
 900.0040 Tightening Stand

**Complete Kit \$ 999.00**

## **6. CAMPUS ADVANTAGES**

- Fully automated Parametric programming for ALL machining process.
- C-axis programming.
- Production of unique macros for own production.
- Part rotation for better visibility and easier programming.
- Part programming may include pods location.
- Ease of adjustment of pods thickness without modifying program.
- Easy offset in X and Y axis.
- Programming with macros or icons.
- Automated text creation for engraving, integrating Windows True-type fonts.
- Automatic parallel routing.
- Direct DXF conversion at the controller, no need for an external post processor.
- When in bar-code mode, machine pre selects working zone to utilize.
- Exclusive CAMPUS graphic simulation with time study without material, and visual display of machining center head.
- File preview function.

## **7. ADVANTAGES TO HSK CONNECTION**

The HSK connection is the internationally recognized standard for superior high-speed tool holder performance.

The HSK connection utilizes the combination of face contact and improved taper contact to provide users with:

- Increased stiffness: 5 to 7 times higher than steep taper (ISO).
- Repeatability: Taper and face contact increase positioning accuracy, reducing run out.
- Superior High Speed Performance: The short taper and hollow shank design results in a reduction in the holder weight, thus reducing spindle stresses. Interior taper clamping reduces the effects that centrifugal forces generate at higher speeds.
- High Torque Transmission: The combination of face contact and taper contact create improved friction. This in conjunction with positive drive key design improves torque transfer under heavy cutting loads.

*Since its introduction in 1993, HSK has proven to be the new world standard for high-speed tool holding.*



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**Upon receipt of the machinery, you will be responsible for:**

- Making provisions to have a forklift or rigger on site for unloading the truck.
- **Inspecting the goods for freight damage.** Making note of any damages on the delivery receipt in the presence of the truck driver is the single most important step you can make to insure the carrier's liability for the freight damage.

**Since all machines are shipped FOB Charlotte, all freight damage should be promptly reported to the freight carrier by telephone.**

**Please contact Lisa Tatro [lisa.tatro@holzher.com](mailto:lisa.tatro@holzher.com) with HOLZ-HER at 704-587-3400 X 7432 for assistance with this process.**

- Uncrate the machine, take it off the skid and place machine in its proper location. (Legs should be 3.5 inches high and on the pads.)