

### **CNC 84.00**

The IVVS 610 2+2 uses a Sieb & Meyer state-of-the-art controller. The CNC 84.00 features fully digitized servo amplifiers and seamless integration with existing IP-based networks. A graphical representation of programs allows the user to perform dry-runs and thereby eliminate errors at an early stage. Using the proprietary "pattern selection" functionality, individual step + repeats can be executed, thus minimizing production and setup costs.

### Laser tool measurement system

A laser system helps reduce production failures by measuring diameter, length and radial run-out of tools against pre-defined tolerances.

### Automatic loading and unloading system

The IWS 610 2+2 has an automated, space-efficient loading and unloading system which is attached to the rear of the machine. The system, with 20 shelves per work station accepts stacks of different formats and there-by eliminates the need for manual conver-sion. This makes prototyping and serial production both more efficient and less error prone.



### The telescopic loading system

The telescopic loading system transports stacks in a precise and reliable way. By mounting the system underneath the crossbar, all slots in the machine table could be eliminated. The resulting evenness of the surface further increases Z axis precision.

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## **Independent Work Station**





# DRILLING MACHINE

# IWS 610 2+2 Series

# **Precision for your production**

The IWS 610 2+2 two independent work stations allows for individual compensation of each work station. Each station has its own CCD camera system. This provides station specific compensation values and ensures every single PCB has the best alignment possible.

The IWS is equipped with spindle-switch-over technology to achieve the highest flexibility. One high-speed air bearing drilling spindle and one high torque drill/rout spindle is mounted on each work station.



### Pressure foot technology

The IWS 610 2+2 features a redesigned pressure foot, optimized for depth routing processes. The microdrilling pressure foot, which LENZ, as the first European machine manufacturer, introduced in 2005, continues to be the market standard.

#### **CCD** camera system

To meet the current and future high accuracy standards, the IWS 610 2+2 is equipped with one CCD camera system per work station. The system measures the positions of holes and fiducials on the outer layer which allows the CNC to move, rotate and scale the program accordingly. For multi-layer processing, inner layer detection is available. The measurement values of each individual layer can be exported to a file.



### Depth controlled drilling and routing

Great emphasis was placed on depth controlled-drilling and routing which are applications of increasing importance. A second measuring system integrated at the pressure foot and a new 3D software package (SLM) have made contact depthcontrolled drilling and routing even more versatile than ever. Blind via drilling, back drilling, cavity routing, copper following and other Z-axis machining can be performed easily and accurately.



### Tool change belt

An anti-vibration belt and self- sufficient mounting ensures the safe handling of the machine's tools. The belt holds over 5300 tools. Refilling of tools can be carried out during production runs, thereby reducing downtime. The refilling station is ergonomically positioned underneath the user interface.