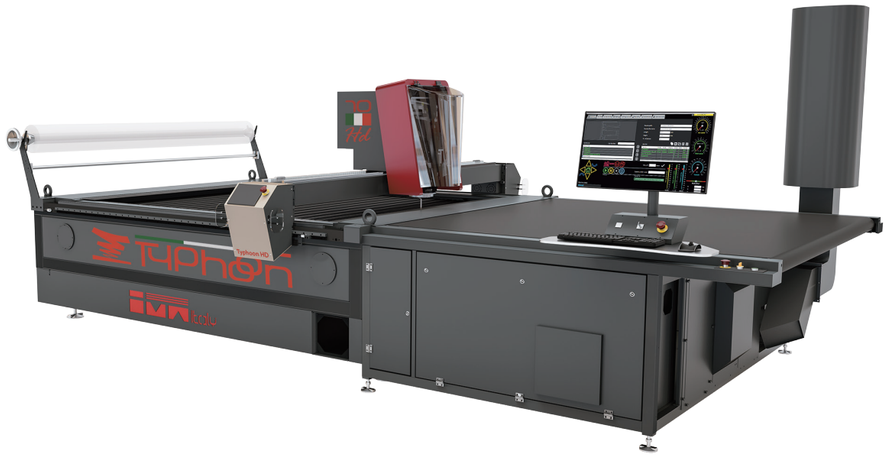
# IMA Introduces the New 922 Typhoon HD: High-Performance Cutting for Denim and Hard Materials




IMA expands its cutting room portfolio with the launch of the new **922 Typhoon HD**, an advanced automatic cutting system specifically engineered for processing hard materials and denim applications. Designed to handle compressed lays up to **70 mm**, the new model is aimed at manufacturers seeking maximum productivity, superior cut quality, and reduced operating costs in high-volume production environments.

The **922 Typhoon HD** has been developed around a robust mechanical structure optimized for demanding materials, ensuring stability, precision, and reliability even under intensive production cycles. The machine is particularly suited for denim manufacturers, where cutting accuracy and productivity are critical factors.

One of the key innovations of the new system is the availability of **continuous cutting technology**, which minimizes machine downtime by eliminating traditional cutting window change cycles. This feature significantly increases throughput and overall equipment efficiency.

At the heart of the machine is the latest generation **AMI (Advanced Machine Interface)** software, installed directly on the onboard industrial PC. Designed with a user-friendly interface, AMI combines machine control, marker management, and editing capabilities within a single platform. Operators can import, modify, and execute cutting files directly on the machine, thanks to integrated CAD functionalities such as piece movement, copy, rotation, modification, and marker optimization. Let's say they have at their disposal  a MINI CAD directly on board of the machine.

A major advantage of the AMI platform is its ability to perform **real-time adjustments during production**, allowing operators to modify cutting parameters, processing strategies, or pattern selections without interrupting the workflow. An unlimited number of cutting profiles can be stored and recalled, ensuring maximum flexibility across different materials and production requirements.

The machine is fully prepared for **Industry 4.0** integration and is compatible with the **IMA Syncro Cutting Room System**, enabling seamless communication with other cutting room equipment and production management systems.

Energy efficiency has also been a key development focus. The innovative vacuum management system, combined with dynamic control of the cutting window, optimizes airflow and reduces energy consumption while maintaining maximum cutting performance. Despite an installed power of 45 kW, average energy consumption remains between **10 and 12 kWh**, contributing to lower operating costs.

The **922 Typhoon HD** is built on a fully digital architecture based on the **EtherCAT communication protocol**, providing real-time monitoring, advanced diagnostics, and automatic optimization of machine performance according to the cutting process being executed.

Additional features include optional blade force sensors for enhanced cutting quality on high lays, electronically controlled pneumatic functions, inverter-driven motors for energy-efficient operation, and a touchscreen control panel mounted directly on the bridge for quick and convenient operator access.

**Advanced AMI Software Features**

The AMI software incorporates a comprehensive range of cutting optimization tools, including:

- Automatic optimization of ISO cutting files.
- Dynamic speed adjustment based on curves and critical angles.
- Recognition and management of common lines.
- Automatic identification of optimal cutting starting points.
- Symmetry management for pattern pieces.
- Flexible control of cutting direction.
- Intelligent path optimization based on geometric profiles.
- Zero-buffer cutting technology.
- Multiple cutting strategies according to fabric type and marker complexity.
- Real-time management and modification of all notch types.
- Marker merging and piece repositioning with collision control.
- Graphical and statistical production reporting.
- Efficient waste-cutting management for improved material utilization.

**Technical Highlights**

- Cutting height: from single ply up to 70 mm compressed material.
- Available cutting window widths: 145 cm and 175 cm.
- Blade speed up to 6,000 rpm.
- Fully synchronized conveyor system for automatic loading and unloading.
- Gantry-driven bridge movement for enhanced precision and stability.
- EtherCAT-based digital motion control architecture.
- PID-controlled vacuum system for optimized energy efficiency.
- Touchscreen operator interface mounted on the machine bridge.
- Continuous cutting option for uninterrupted production.

With the introduction of the **922 Typhoon HD**, IMA reinforces its commitment to delivering cutting solutions that combine productivity, digitalization, sustainability, and cutting quality, providing manufacturers in the denim and heavy-material sectors with a powerful tool to increase competitiveness and production efficiency.

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