

### IMA, a total supplier of cutting room solutions, accelerates its efforts to expand into the home textile field in addition to apparel

To increase the productivity of cutting stations at sewing factories around the world, IMA SpA works on product development every day. The five new products below will be IMA's flagship products in 2021.

In 2021, IMA's goals are to focus on new, previously unexplored markets as well as the discovery of new customers in new sectors. The company will continue to target the clothing industry as its core business but will also try to enter new fields such as the home textile industry and furniture business, both of which are rapidly growing.



#### MAXIMA

MAXIMA is the name we have chosen for our new suite of modeling programs. Today more than ever, every cutting room that aspires to maximum productivity needs to be supported by reliable software, which allows it to face every challenge, even the most complicated. In researching how to improve our product, we decided to focus on the critical issues that were reported to us most by our customers. The result is a cad that guarantees:

- 1) Intuitive use
- 2) Integration into the production process

Intuitive use is guaranteed by shortcuts, automatic size develop-

ment, macro functions that allow you to automate the process. These guarantee a considerable simplification in the learning phase of the new program, especially for operators who up to that moment have used different CADs. It also allows you to make the model design process very streamlined.

The integration of IMA products within the production process and the dialogue with machines from other manufacturers is an essential value for us and has been with us for over 40 years. With MAXIMA this possibility is guaranteed by Direct Importers of proprietary formats from the most popular cads (Lectra, Optitex and Gerber) and by the possibility of exporting files in all formats used. In addition to the 2D modeling CAD, the offer is completed by the Marker with automatic multicore nesting. The algorithm that calculates the optimal arrangement of the patterns guarantees maximum use of material while maintaining very low processing times. The Marker respects

all constraints related to materials applied to the pieces such as directional rotation, skew margins and diffusion constraints to ensure quality and minimize the margin of error.

#### AMI

AMI stands for Advanced Machine Interface, it is the latest HMI entirely developed by the IMA Software Department and will be installed exclusively on the new generation of IMA cutting machines that will be introduced on the market in the next months.

Here below some of the main features of latest IMA software:

- Fully customizable graphic interface, to give each operator the proper tools
- A unique application for ISO file processing and cutting machine control
- Different access levels for better access to machine parameters and cutting profiles
- Advanced sharpening criteria
- Massive use of Microsoft SQL Server database for data archiving and report consultation
- Dynamic translation of the cutting window, based on vacuum efficiency
- Continuous cutting during cut-



AMI



*IMA MITHOS - FULLY DIGITAL SPREADER*

ting window translation

- ISO files editing at runtime; the changes are automatically applied to the remaining pieces
- Improved diagnostics and error reporting

### IMA MITHOS - FULLY DIGITAL SPREADER

Full use of Mitsubishi technology. PLC and motors grant communication protocol with inverters of latest generation.

Main advantages of digital system:

1. Machine information, commands and diagnostic totally controlled in digital, in real time
2. Fabric feeding and tension free

system are also electronically controlled in real time by DIGITAL SIGNAL which grants:

- high precision of machine positioning,
  - perfect edges alignment,
  - high pulses encoder that allows the machine to work in MM. instead of cm., with big saving of fabric and time
3. Continuous dancer bar control, with special swift
  4. Possibility to set, store and load in real time unlimited spreading profiles in according to the kind of fabric
  5. Low consumption thanks to eco-power technology (Mitsubishi in-

verter of latest generation) and low running costs

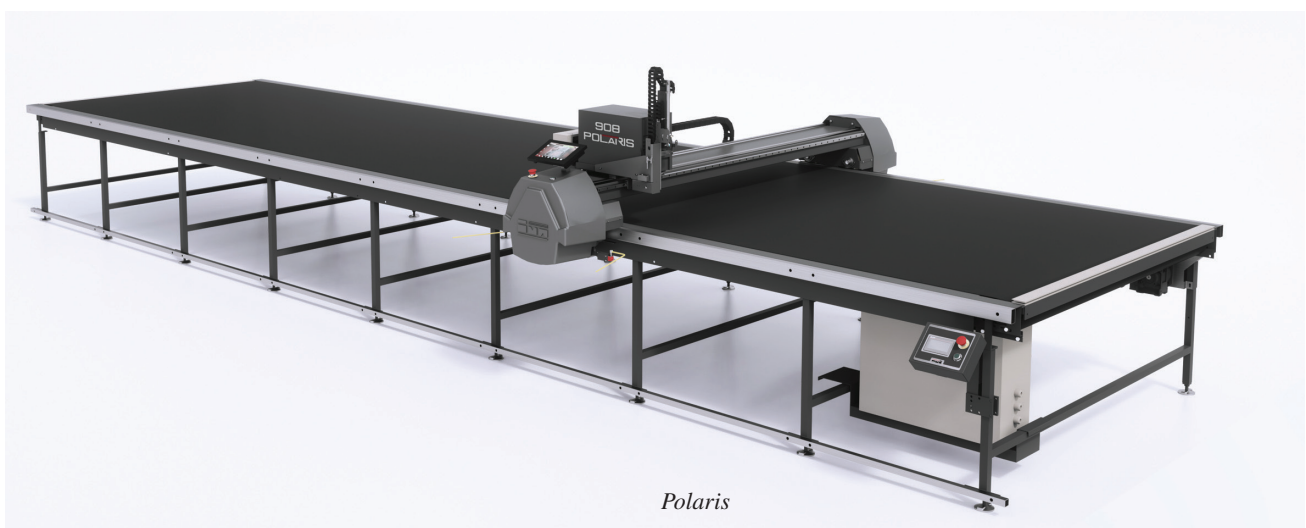
6. High speed of data transfer
7. Possibility of remote connection by devices as tablets or smartphones
8. Possibility to interface the machine with company managements systems
9. Easy remote support service by IMA team.

### MACHINE DETAILS:

- 4 driven wheels by synchronous belt
- interactive touch-screen with flexible performances to control spreading functions
- Possibility to display and update fabric usage
- Automatic braking system
- Be-directional cutting device with adjustable speed and accelerations and programmable lifting-Lowered fixed cradle turret for easy loading and unloading of the cloth roll, consisting of a double full width PVC belt.
- Rear belt moved by air pistons
- Management of flat spreading

### TECHNICAL SERIES SPECIFICATIONS:

- Capacity: 100 kg



*Polaris*

## 2021 Flagship Products

- Spreading speed: up to 100 M/min
  - Lay thickness: 24 cm
  - Available fabric width: H 180
  - Roll diameter: 50 cm
  - Voltage: 400-220 3F+N - 50 HZ
- Different specifications might be available on request

### Polaris

Polaris is the latest IMA innovation in the field of automatic marker labeling.

The Polaris labeller differs from the previous model thanks to a PC-based HMI that allows greater flexibility in operations. In the automatic section, the operator can choose and upload the file to be processed, he will also be provided with some tools to be able to modify the work in progress.

The operator can in fact move the position of the labels and can, if necessary, change the content of the labels manually and in real time. You can also create and apply new labels manually. The operator will have access to some operating settings of the machine such as the language. You can also check the operating status of the labeller at any time.

The new labeller allows the printing of all languages such as chinese and russian, and the possibility of using labels of different sizes according to operational needs by setting the size directly on the machine. Polaris is equipped with new electronics management, thanks to the new servo drives on the digital bus it has been possible to significantly increase the precision and performance of the machine.

The latest novelty is the possibility to move the labeller on multiple cutting lines. The operator just has to move the machine into position, make sure that the translation table is released from the rest of the line and move the machine to the cutting line to be used. . The transla-



*Typhoon 920.70*

tion table does not affect the work area of the spreading line, in fact it is also possible to spread on the translation table without wasting space and time.

### Typhoon 920.70

Typhoon 920.70 is IMA's high-end automatic cutting machine.

Typhoon 920.70 allows you to cut compressed fabric up to 70mm depending on the type of fabric. Designed to achieve top-level performance, it significantly increases your productivity thanks to ultra-high cutting speeds with high quality standards.

The machine is controlled by specific software, fully designed by IMA, intuitive and flexible, which make it simple, efficient and flexible. Among the various functions available we find algorithms that allow the editing of ISO files (movement of pieces, modification of native geometries, modifications of special processes such as notches or holes, creation of markers other than the originals, etc.), path harmonization algorithms and the possibility of creating an almost infinite number of cutting profiles to recall the best machining parameters. Typhoon 920 complies with the requirements of industry 4.0 and IOT; it is also included in the IMA Syncro Cutting Room System

for the management and monitoring of the Cutting Room.

The digital control of each user guarantees high precision of execution. Another advantage of the full digital technology is the real-time control of the state of the machinery, with diagnosis and performance adjustment functions. The 920 machine is also equipped with a system for recognizing the effort acting on the blade and thus for correction of the operation by means of specific algorithms, reducing the effort acting on the tool. The vacuum system managed by an inverter guarantees high vacuuming power with low electricity consumption, thanks to the use of PID algorithms for controlling the vacuum units

### TECHNICAL DETAILS:

- useful length of the cutting window: 175 cm.
- cutting width: 180 cm - 200cm - 220 cm.
- cutting height: from single sheet up to 70 mm. of fabric
- energy consumption: 8 - 9 kw
- environment temperature: from 10 ° to 60 °
- Voltage: 400 V 3 PH 50/60 Hz.
- Weight: ~ 4000kg

Circle # 72 on Reader Service Card