BOXMAT
BOXMAKERS

zemat'
Since 1957

BOXMAT HD   BOXMAT PRO X   BOXMAT X-CUT

AUTOMATIC SHORTRUN BOXMAKING MACHINES

boxmat.tech

Made in EU

BOXMAT BOXMAKERS

Every precious cargo deserves the best, tailored to size, sturdy and reliable packaging. At Zemat Technology Group we are passionate about creating innovative technological solutions for the packaging and shipping industry.

In our design and manufacturing process we implement over **67 years of European and American expertise.** Providing exceptional equipment for the packaging industry, where customized, short run production series are the key to achieving the market success and satisfying even the most demanding customers.

We are providing a wide range of corrugated boxmaking machines designed for short run production needs to help your company **save time, increase productivity** and create sustainable production flow, while **decreasing costs and waste.**

Our machines offer full technological flexibility in any corrugated cardboard converting organization. With state-of-the-art box design software, no need for special dies setup, unsurpassed quality of tools and assembly and the XXI century machine design implementing the best components and **industrial solutions**.

The design, engineering and manufacturing team is based **in the heart of Europe**. We have partners and offices in the USA, United Kingdom, Germany, Australia, Mexico and commercial and technical presence in many countries around the World.

250+
working
Boxmat machines

6500+
machines built
by Zemat TG

67+
years of
experience

50+
countries with
Zemat TG machines

boxmat.tech

BOXMAKING TECHNOLOGY WITH THE HUMAN TOUCH

BOXMAT HD

The Highest Standard in Box Making

Slotting, Cutting,
Board Trimming, Scoring,
Die Cutting, Gluing and Printing,
IN ONE COMPACT MACHINE

60 FEFCO DESIGNS
100'S OF BOX STYLES

Eco-friendly low power consumption

Under 30 sec. changeover and set-up time

Scan for more information

Fastest corrugated box manufacturing
system for highly demanding short and medium runs
of standard and high density corrugated board and fanfold

HIGHLIGHTS

- One pass operation to make a perfect box
- **Sheets and Fanfold** use, single and double wall
- **Preinstalled FEFCO styles** with custom size adjustment ability
- Universal use with all optional feeders
- Switchover time – less than 30 seconds
- Fully automatic servo-drive setup
- **Counter-knife** and counter scoring/creasing system
- Large 19" touch screen HMI
- **Built-in VPN** secure connection for remote calibration and updates
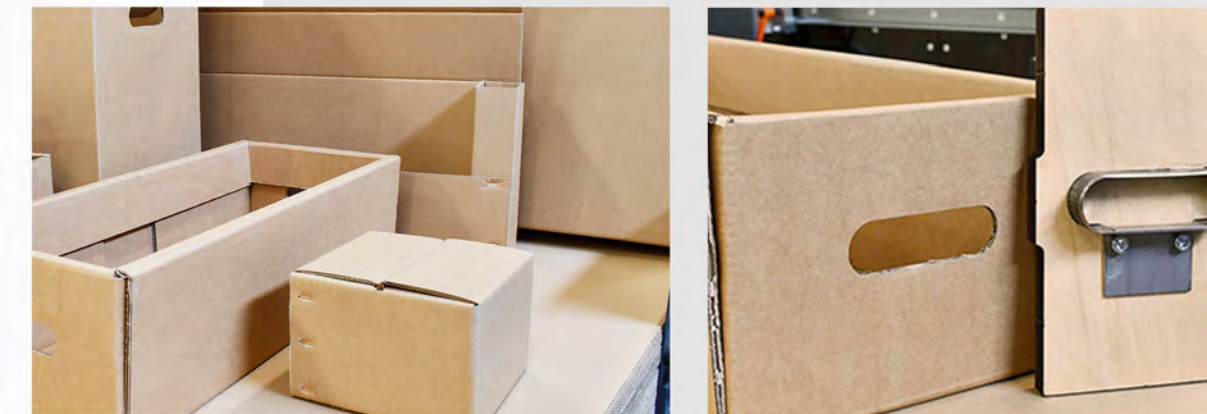- Built-in conveyor for **slotting waste removal**

INTELIGO FEATURES

- JQS Job Queue System production scheduling
- Create your own design of a box with the **BOX WIZARD**
- **MRP/ERP** manufacturing integration
- Cut/Score allowances correction and editing
- Ability to connect **barcode reader** for faster search of saved boxes
- Optional 3D product scanning

Boxmat HD with
Digital Printer
and vacuum feeder

FEATURES

- Fully programmable interface for box creation
- Cutting out handles, revisions or angular cuts in corrugated box panels with **two die-cutting units** with 210 x 130 mm (8.25 x 5.1") work area
- 2 linear guide strips with 4 tools nests on each for total of 8 tools (with possible expansion to 12 tools)
- Additional shaft for better guidance of corrugated board
- Special design of beam and slotting knives provides much less wear
- **Automatic advanced tools identification**
- Independent drive for each tool nest provides very fast position setup
- Tool nests can handle either scoring/creasing wheels or knives
- Easy change of creasing wheels
- Ability to set the tools in-line, one-after-another, e.g. for double creasing of heavy boards
- Reinforced chassis construction for less vibrations during production

TECHNICAL SPECIFICATION

Minimum board size [W x L]: 250 x 750 mm (10 x 30")
Maximum board size [W x L]: 2400 x 10000 mm (94 x 393")
Slot width: 8 mm (5/16")
Sectional slotting knives: 100 mm (4") each section
Standard slotting knives length: 500 mm (20") each side
Min./max. slotting knives length: 200-700 mm (8-27½")
Glue flap: from 5 mm
Power supply: 3 x 400 V (USA: 3 x 480 V /20 A)
Footprint [L x W x H]: 3550 x 1900 x 1750 mm (140 x 75 x 69")
Weight: 4100 kg

BOXMAT PRO X

New and Most Versatile

No long term corrugated board contracts!
With Boxmat machines, you have a **freedom** to choose your own corrugated supplier and make your own **BOXES ON DEMAND**

The newest generation of the most versatile corrugated box maker - with ability to use various feeders and printers
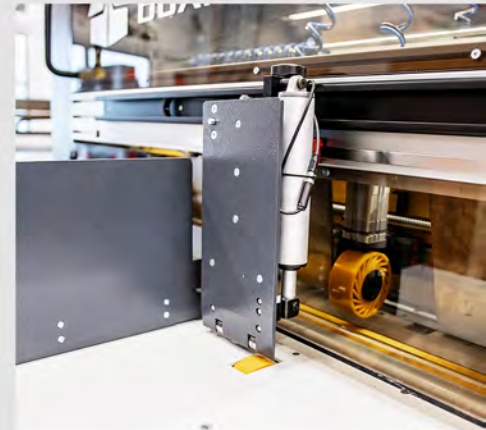
HIGHLIGHTS

- **Plug-n-Play Module** Connect for easy integration with new Digital Printer and Feeders
- **24" touch screen HMI** with new interface
- Reinforced slotting beam
- New design of longitudinal tools
- Built-in conveyor for **slotting waste removal**
- Improved board feed system including electrical adjustment of the feeding gap
- New solutions for easier and faster maintenance
- Upgraded design consistent with modern line of Boxmat boxmakers
- Seamless use of available optional feeders:
  - **SF** - Standard feeder
  - **VF** - Vacuum feeder
  - **LWF** - Lightweight feeder
  - **HWF**- Heavyweight feeder
  - **FF** - Fanfold feeder
- Synchronous work with optional **Gluing System** and **miniFLEXO** printing
- Hot glue system available
- Shorter setting time of longitudinal tools
- Built-in **INTELIGO** System

60 FEFCO DESIGNS
100's OF BOX STYLES

Eco-friendly low power consumption

Under 60 sec. changeover and set-up time

Scan for more information

VF | VACUUM FEEDER

Plug-n-Play Module Connect
for easy integration with new Digital Printer and Feeders

FEATURES

- Corrugated board used: **B, C, BC + fanfold**
- Eco Drive servo motion with low power consumption
- **10 sectional slotting knives**
- 4 cutting knives (max. 8)
- 4 scoring/creasing wheels (max. 8)
- External control of box dimensions
- Ability to modify standard **FEFCO - RSC/OPF/FPF** and other boxes
- Secure **VPN remote diagnostics** and update
- No need for extra tools or dies / all settings done with servo drives
- Optional use of special shape creasing/scoring wheels
- **Multi-out boxes production** from the length
- All settings done from an intuitive touch screen panel
- **Modular build** for cutting knives and creasing/scoring wheels for fast easy replacement
- Slotting, bi-directional scoring/creasing, cutting, gluing and printing in **one cycle** (*with all options installed)

TECHNICAL SPECIFICATION

Minimum board size [W x L]: 250 x 650 mm (10 x 25")
Maximum board size [W x L]: 2400 x 10000 mm (94 x 393")
Slot width: 8 mm (5/16")
Sectional slotting knives: 100 mm (4") each section
Standard slotting knives length: 500 mm (20") each side
Min./max. slotting knives length: 200-700 mm (8-27½")
Glue flap: from 5 mm
Power supply: 3 x 400 V (USA: 230 V /20 A)
Footprint [L x W x H]: 3550 x 1650 x 1750 mm (140 x 65 x 69")
Weight: 2500 kg

BOXMAT X|CUT

Reliable Simplicity

The Boxmat X-CUT is a straightforward yet **highly adaptable machine**, ideal for producing short runs of corrugated boxes. It offers an **exceptional balance** between price and performance

60 FEFCO DESIGNS
100's OF BOX STYLES

Eco-friendly low power consumption

Under 60 sec. changeover and set-up time

Scan for more information

The **Boxmat X-CUT** is the evolution of the successful **Boxmat 2**, now featuring a completely redesigned look inspired by the flagship Boxmat HD model.
While retaining all the functionalities of its predecessor, the **Boxmat X-CUT** introduces significant innovations that enhance both performance and user experience.

HIGHLIGHTS

- **Corrugated Board Compatibility:** Supports B, C, and BC flutes
- **Precision Cutting:** Ensures accurate board length adjustments
- **Anti-Jam Design:** Rear-mounted transversal cutting knife prevents board jamming
- **Integrated Process:** Slotting, cutting, scoring, creasing, and board trimming all performed in a single cycle
- **Quick Changeover:** Less than 60 seconds required for changeover from style to style or size to size
- **Versatile Formatting:** Supports both longitudinal and transverse board size adjustments
- **Advanced Slotting:** Equipped with 10 sectional slotting knives, each 100 mm wide
- **Creasing and Formatting:** Features two creasing rolls and three longitudinal formatting knives
- **Smooth Feeding:** Board feeder with soft grip rolls for gentle handling

NEW FEATURES

- **Two-out multiproduction** - ability to make 2 boxes, one after another, from extended size board
- **Enhanced integration** - optional miniFlexo printer and Gluing System
- **Control panel** - 21,5" touch screen HMI with new intuitive interface

Integration with **miniFlexo** and **Gluing System**

FEATURES

- **External Length Control:** Precise external length control of the board
- **Glue Flap Cutting:** Includes a mechanism for cutting off the glue flap
- **Remote Diagnostics:** Secure built-in VPN connection allows for remote diagnostics and updates via HMI
- **User-Friendly Interface:** Main box production settings controlled through a 21.5" intuitive touch screen panel
- **Versatile Box Design:** Preloaded with 60+ FEFCO styles and a Free Style option for custom box designs
- **Tool-Free Operation:** No additional tools or dies required for operation.
- **Semi-Automatic Setup:** Streamlined setup process with semiautomatic features
- **Energy Efficient:** Operates on an ecofriendly, low-energy power supply
- **High Productivity:** Capable of producing up to 600 boxes per hour
- **Sectional Slotting:** Utilizes sectional slotting knives for precise cutting
- **Electric Drives:** Most settings are adjusted electronically
- **All-in-One Construction:** Reduces production errors commonly associated with multi-modular machines
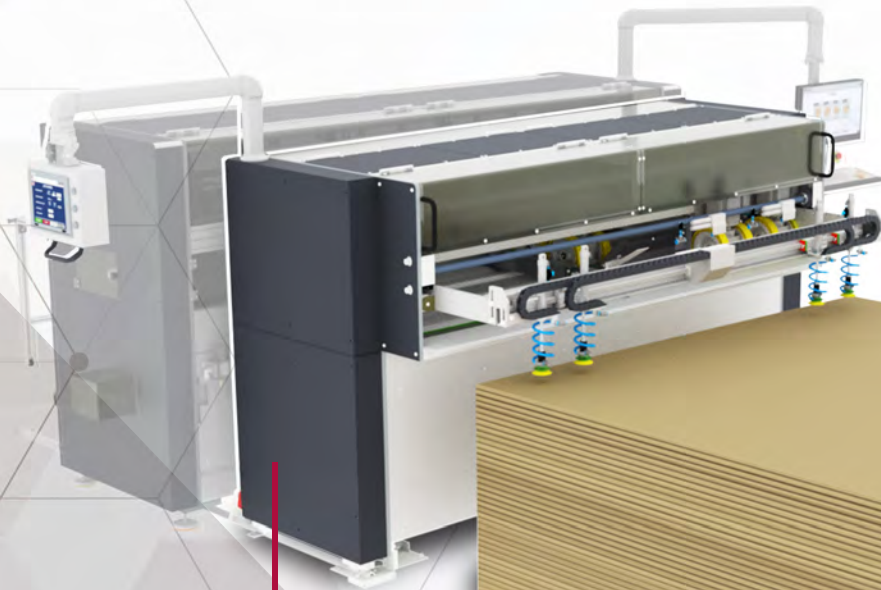
TECHNICAL SPECIFICATION

Minimum board size [W x L]: 350 x 550 mm (14 x 21")
Maximum board size [W x L]: 2500 x 10000 mm (98 x 393")
Slot width: 8 mm (5/16")
Sectional slotting knives: 100 mm (4") each section
Standard slotting knives length: 500 mm (20") each side
Min./max. slotting knives length: 200-700 mm (8-27½")
Glue flap: from 5 mm
Power supply: 3 x 400 V (USA: 230 V /20 A)
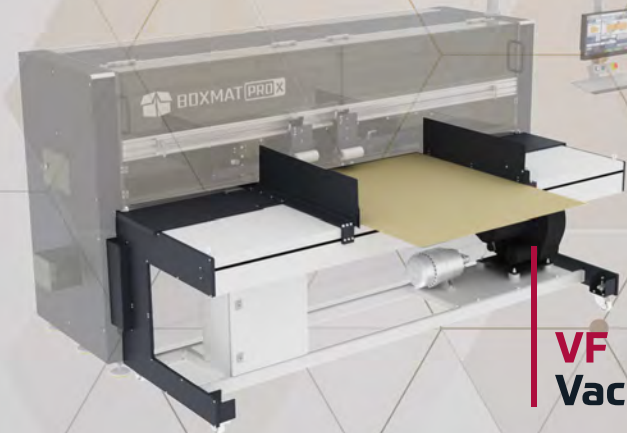**Footprint [L x W x H]:** 3350 x 1550 x 1550 mm (140 x 61 x 61")
Weight: 2300 kg

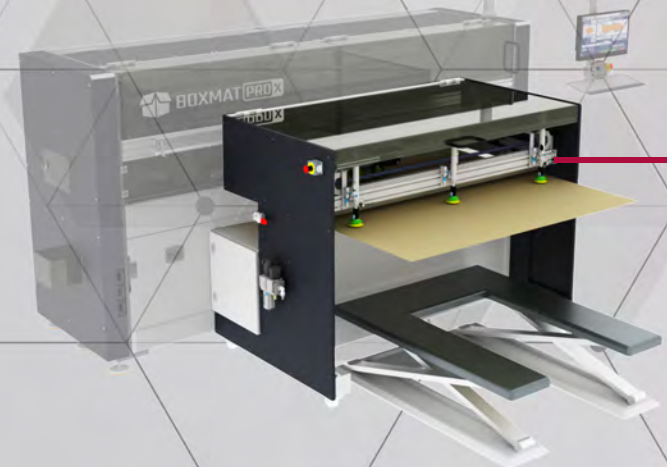# FEEDERS

For corrugated sheets and fanfold
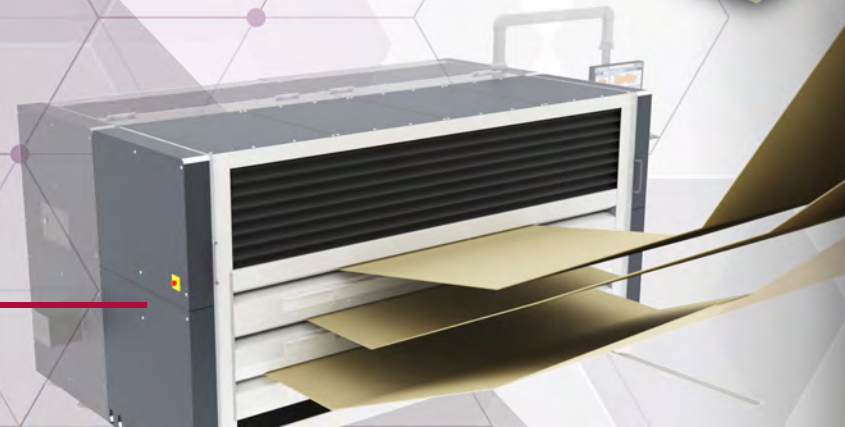
SF
Standard feeder

VF
Vacuum feeder

HWF
Heavyweight feeder

LWF
Lightweight feeder
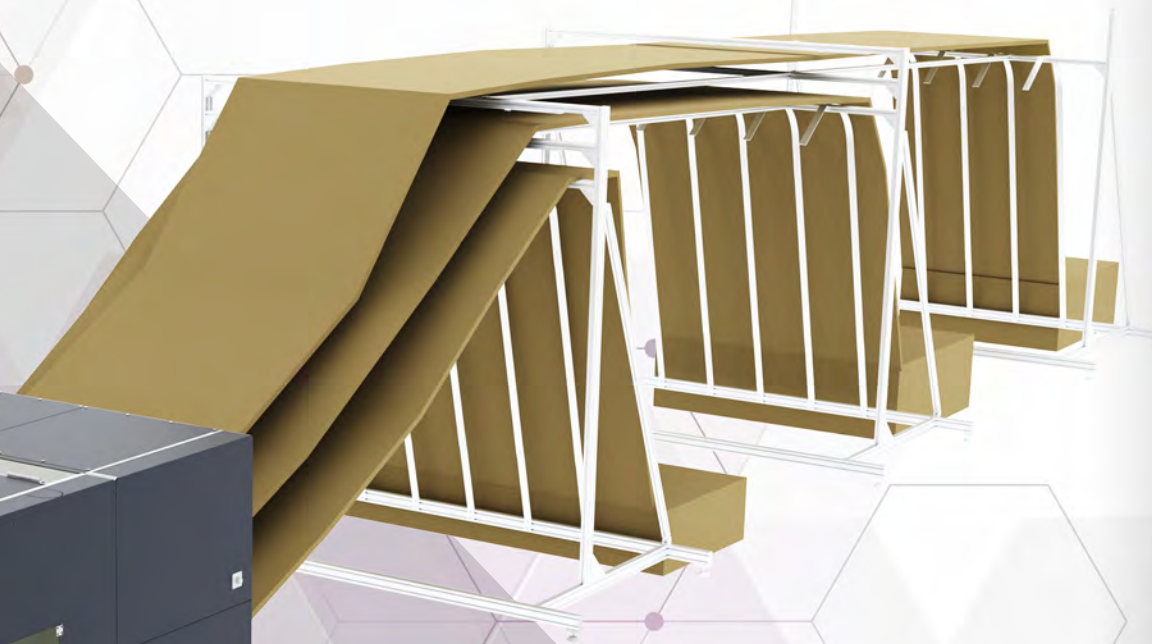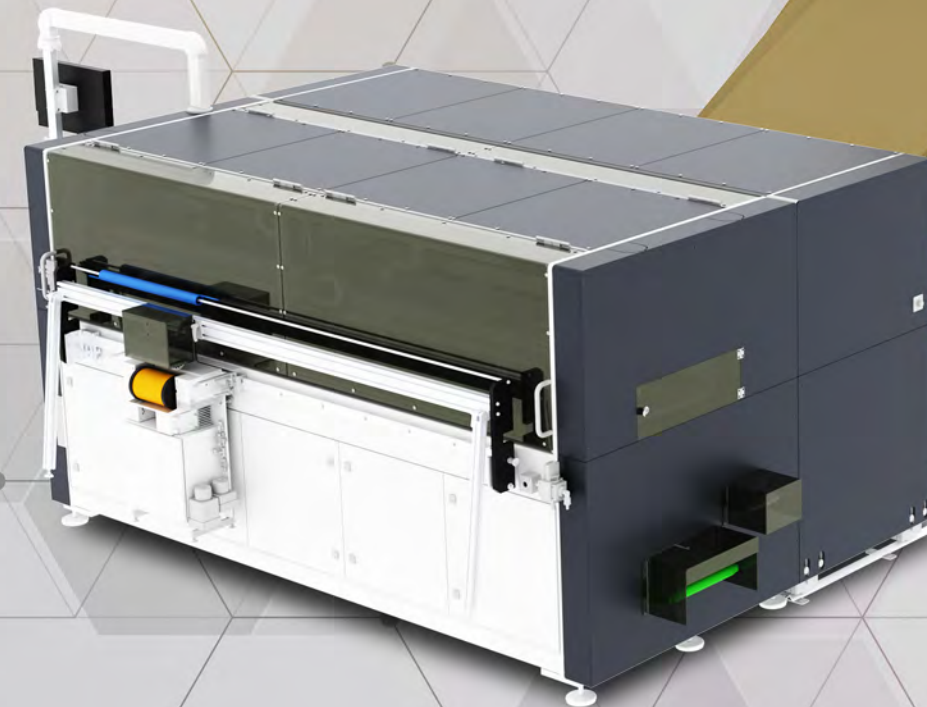
FF
Fanfold feeder

LWF
Lightweight
feeder

FANFOLD USE

The Boxmat series machines are truly universal systems which allow the use of single and double wall corrugated sheets as well as various widths of FANFOLD (Z-Fold) corrugated board.

- **Easy setup** and quick switchover
- Center Feed system
- Fanfold use with slotting knives
- Great for double wall corrugated fanfold
- Make **Heavy Duty boxes** with easy fold flaps
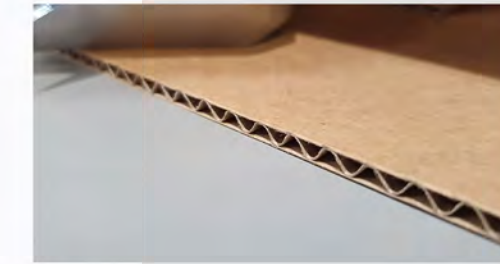- Fanfold up to 2400 mm (94") wide

ADD-ON OPTIONS

GLUING SYSTEM

Double nozzle applicator integrated with a cross-cutting knife applies cold glue in the same cycle as trimming the board - saving time and streamlining the box production cycle. The unit uses **single or double nozzles** for dotted, dashed or continuous glue line application. Especially helpful with the production of large boxes.

- Double nozzle applicator with laser guide
- Single or double glue lines, dots or dashes
- Precise setup of gluing area
- Easy maintenance and servicing

CIRCULAR OR BLADE KNIVES

SIMPLE OUTPUT FOLDING TABLE

ADJUSTABLE DOUBLE CREASING ROLLS

SLOTTING KNIVES

COROPLAST USE

JET**BOX 1600**
Digital ink jet printer

Digital Ink Jet Printer is perfect for boxes production businesses in all sectors, ranging from furniture, home appliances, automotive to e-commerce shipping.

- Digital Printing System designed for fast printing of signage, labels, barcodes, graphics or text directly on corrugated boxes
- Ink Jet Printer **integrates seamlessly** with Boxmat PRO X and Boxmat HD and is programmed and operated directly from Boxmat's HMI touch screen control panel
- Printing is done from the **bottom up** for maximum efficiency and as a first process during the whole box production cycle; before cutting cycle of the corrugated board and it's optimized to save time between the run cycles
- Every design and specific position set-up can be stored in an internal memory and is easily accessible when needed
- Each printing head can print more than one image
- Printing of **multiple images** at different positions can be done with the same printing head

FEATURES

- Two independent print head module drive axis beams
- **1 or 2 print modules on each axis**
- Narrow print mdule: 210 mm (8.25"), with 3 print heads (3 x 70 mm)
- Wide print module: 420 mm (16.5"), with 6 print heads (6 x 70 mm)
- Maximum print width: 1600 mm (63")
- High resolution print: **360 dpi**
- Standard file format: *.png
- **One or two colors printing**
- Standard color: black
- Quick dry, oil based ink
- Box printable area: full length with no limits
- Print in several positions, both along and across the box
- Simple graphic interface
- Independent ink feeding system for each axis
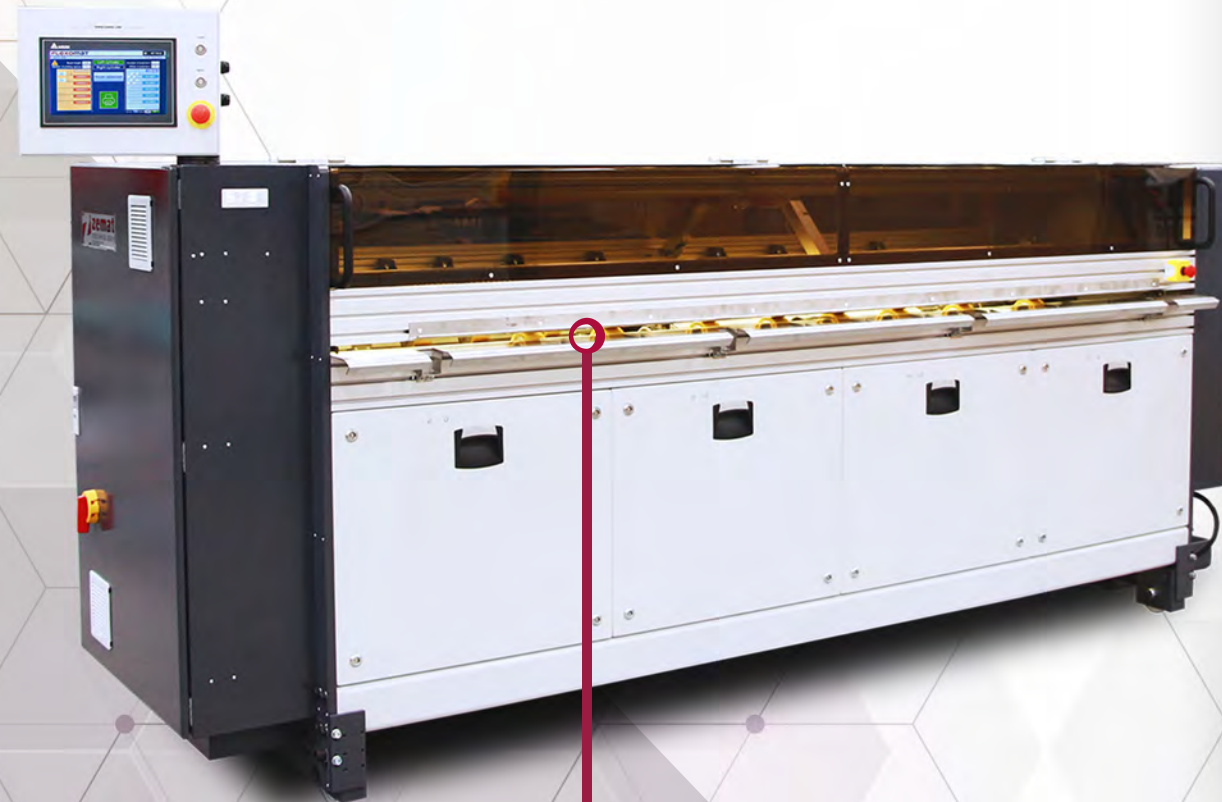- **Automatic vacuum cleaning** of printing head

Digital printer allows printing on the outer surface of the box:
text, barcodes numbers, symbols, images, BMC labels

Scan for more information

FLEXOmaT
Full size flexographic printer

- Special design steel/AL profile structure for vibration free printing
- Single or double print cylinders
- **1 or 2 color printing** (SIDE BY SIDE)
- Ultra-Raster printing with ceramic Anilox cylinder
- FRR - Fast Repeat Rotation of print cylinder
- **Print width: 760 mm (30") – single cylinder**
- **Print length: 900 mm** (35") with FRR for multi-panel printing
- **Max. working width: 2400 mm (94")**
- Independent drives and motion control of each cylinder
- Servo control for maximum print quality
- Infeed and outfeed system for precision registration
- **Easy access for clean up** and quick changeover of polymer plates
- Intuitive touch screen HMI for easy setup and control
- **EPC** - Edge Position Control

Print full size board up to 2400 mm width

mini FLEXO
Compact flexo printer

*mini*FLEXO is the economy latest printer model for the **Boxmat PRO X, X-CUT and HD** series machines, which was created from our experience in the box printing technology. From now on, printing, so widely present on corrugated boxes produced today, has never been so easy to do.
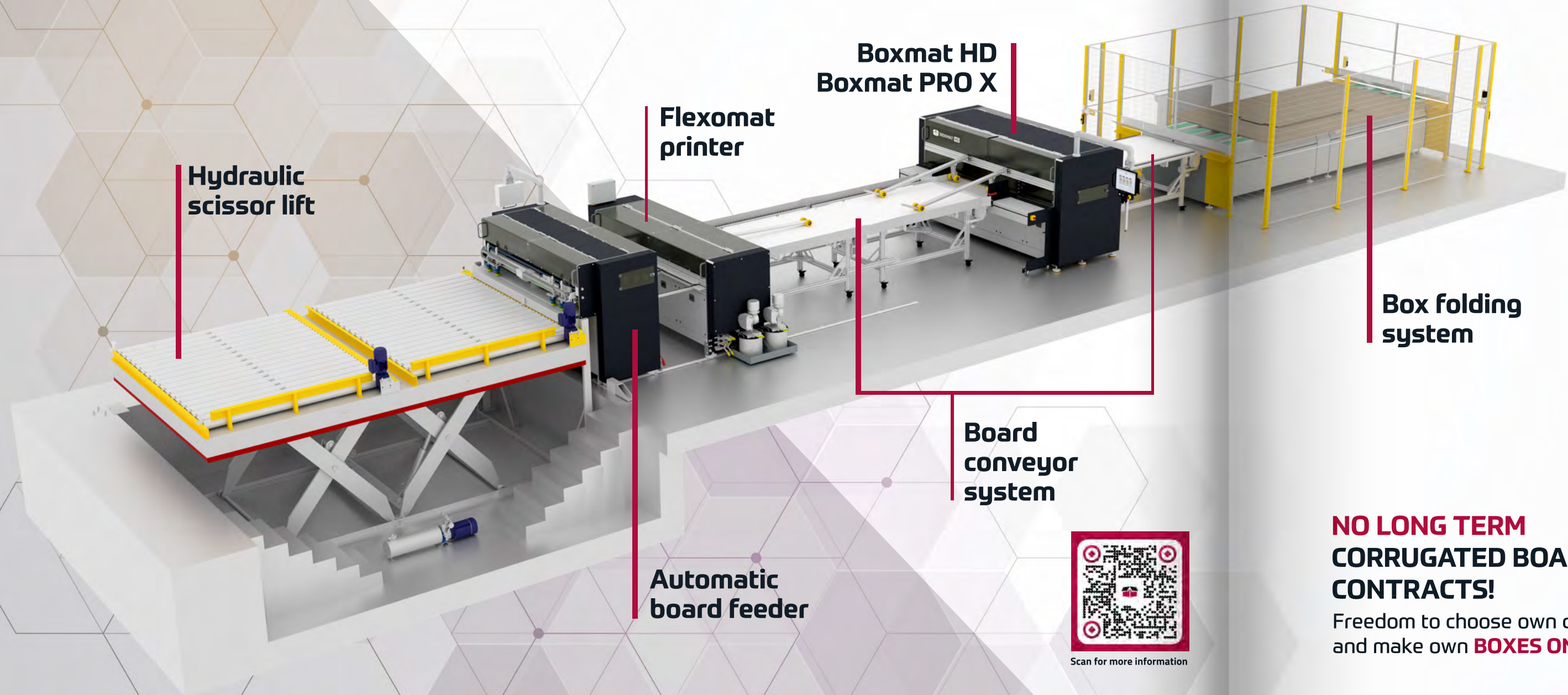
The system is an ideal solution for customers producing boxes both for their own needs and as a subcontractor.

- **Print width: 200 or 300 mm**
- **Print length: up to 300 mm**
- Non-toxic water-based ink - easy to use and service
- One-color printing with high-quality flexographic technology
- Use of standard flexographic polymers
- Full synchronization with the box production / cutting cycle
- Full control of printing from the HMI panel
- **Independent drive system** for rollers and cylinder
- Programmable indexation of the printed area
- Printing on several panels / sides of one box
- Possible printing on the flaps of the box
- Possibility to use two mini FLEXO printers side-by-side
- Electric pump with automatic ink supply
- Very **easy cleaning** of the ink system

BOX PRODUCTION LINES

Modular solutions for automatic production of corrugated boxes

Hydraulic scissor lift

Flexomat printer

Boxmat HD
Boxmat PRO X

Box folding system

Board conveyor system

Automatic board feeder

Scan for more information

Box plant automatic manufacturing solutions with modular design:

- Board feeding
- Flexographic printing
- Automatic boxmaking
- Box folding
- Stacking
- Palletizing

The boxmat automatic production lines are the perfect solution for the most demanding custom box manufacturing facilities

Automatic production lines for making of corrugated cardboard boxes made by Zemat Technology Group are designed and built as highly advanced systems with a wide range of automation and flexibility of configuration to provide the custom boxes manufacturing solution. Complete line may include synchronized lift, automatic feeder, flexographic printer, boxmaker machine with the gluing option, box folding unit and stacker.

All variants can be modified according to customer needs. The technical specification of each production line varies depending on the custom modifications.

NO LONG TERM CORRUGATED BOARD CONTRACTS!

Freedom to choose own corrugated supplier and make own **BOXES ON DEMAND**

TECHNICAL
SERVICE

The most reliable machines are backed with the finest customer support

When it comes to ensuring your production our team of dedicated service engineers is ready whenever duty calls. **We offer worldwide service and maintenance for every machine.**

Our expert technical team is on hand to assist you globally. From initial installation to ongoing training and after-sales care, we ensure your production runs smoothly.

We are solving problems remotely via secure VPN connection directly with the machine and our engineers travel globally for on-site support.

- Worldwide installation and training
- Remote troubleshooting
- Full after-sales customer care
- On-site service anywhere in the world

INTELIGO
HMI SYSTEM

Every intelligent machine needs a smart programming to interact with its human operator

The INTELIGO system creates the most user friendly interface for the Boxmat series of machines. The logic behind this creation is to make the interaction with the machine intuitive and allow it to think ahead – to predict the next move of the operator, to help to create the best box in a fastest time frame available.

Up to 24" large touch screen HMI providing the most user friendly, multi-panel, ergonomic operator interface.

Box Design WIZARD allows you to create any box intuitively right on the screen. It will show and place the scoring/creasing and cutting lines exactly where they will be in the finished box.

Job Queue System JQS can be programmed each day for smart scheduling of the box production flow process or synchronized (with custom modification) with any internal MRP, MES, ERP, MOM and production control software.

3D Product Scanning and data input capability. With INTELIGO system you can scan dimension and weight of the product to be packaged and send this data directly to the machine which will calculate the required box size.

Barcode Reader integration allows for fast and efficient production data input into the work flow scheduling process.

We use the state-of-the art PLCs and programming platforms to achieve the best results, both visual and logical. Our team designs and builds highly reliable HMI/PLC systems that delivers safe, cost-effective, consistent and intuitive performance which relies on the application of engineering best practices throughout design, panel layout, production, testing and quality assurance processes. They apply a thorough knowledge of technical ergonomic, design and manufacturing standards ISO, IEEE, ANSI, CE which are fundamental to HMI system design. Each HMI/PLC system we provide has built in secure VPN interface allowing remote calibration, servicing and updating.

BUILT IN VPN INTERFACE FOR ONLINE CONNECTIVITY

PROGRAMMED INTUITIVE SMART LOGIC PLC TO MAKE JOB EASIER

FLAT DIE ROLLER CUTTER

Available work table widths:
80 / 120 / 150 / 180 / 250 cm

- ■ Synchroset Rolls and belt drive work tables
- ■ **Manual and automatic** shuttle production cycles
- ■ Precision cutting with simple flat bed wood/steel blade dies
- ■ Max die height: 75 mm (3")
- ■ Production speed max: 20-30 cut cycles/min
- ■ **Touch screen setup** and PLC control
- ■ Change from one die to the next in seconds
- ■ Convert a range of materials from 0-12 mm (1/2") thickness
- ■ Powered belt drive in-feed and out-feed of the die
- ■ **Double safety system**
- ■ Compact and foldable design
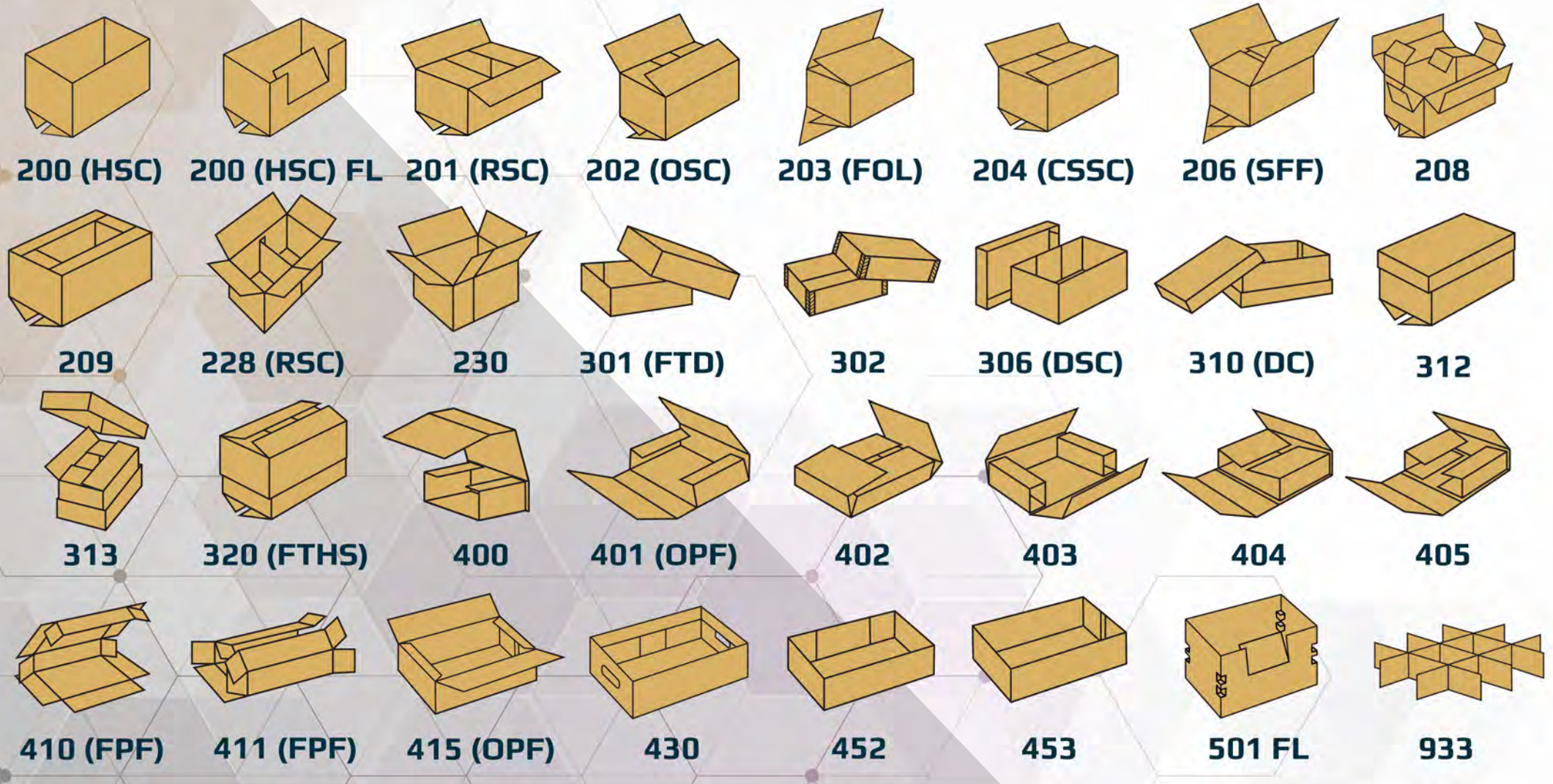
BOXMAKERS COMPARISON

	BOXMAT HD	BOXMAT PRO X	BOXMAT X CUT
Cardboard used	B, C, BC + fanfold	B, C, BC + fanfold	B, C, BC
FEFCO Styles	Preinstalled ~60 FEFCO styles + Box Wizard	Preinstalled ~60 FEFCO styles + Box Wizard	Preinstalled ~60 FEFCO styles + Free style
Control panel	19"	24"	21,5"
INTELIGO System	✔	✔	-
Board size width	250-2400 mm	250-2400 mm	350-2500 mm
Tools setting	automatically simultaneously	automatically in series	automatically
Multiproduction	multi out	multi out	two out (NEW!)
Shared tool nests	8 (max. 12)	-	-
Cutting knives	4 (max. 6)	4 (max. 8)	2+1
Creasing rolls	4 (max. 6)	4 (max. 8)	2
Setting creasing rolls inline	✔	-	-
Creasing strength regulation	touch screen	touch screen	manual knob
Various longitudinal tools	✔	✔	-
Automatic tools recognition	✔	-	-
Counter knife/scoring system	✔	-	-
Transversal cutting	✔	✔	✔
Dies cutting	✔	-	-
Different feeders use	✔	✔	-
miniFLEXO	available	available	available
Gluing System	available	available	available
Footprint (with STD feeder)	3550 x 1900 x 1750 mm	3550 x 1650 x 1750 mm	3350 x 1550 x 1550 mm
[L x W x H]	(140 x 75 x 69")	(140 x 65 x 69")	(132 x 61 x 61")
Weight (with STD feeder)	4100 kg	2500 kg	2300 kg