



EMBA 175, 215, 245 and 295 QS Ultima™

The shape of innovation



Berg Group





Experience the geometry of success – with ultimate paper utilisation

The strength of corrugated board lies hidden in the smooth sine curve or profile of its fluting. During conversion, while still a flat sheet, without the angular rigidity of a box, the integrity of this profile is at risk. And compressed corrugated board is weak board. Worried? No need: the new EMBA QS Ultima™ eliminates the problem.

World's first non-crush converting inline machine

Marking a radical advance in technology, this state-of-the-art machine features EMBA's unique Ultima Feeder™ and vacuum transport throughout the complete machine, making it the world's first inline converting machine to feature EMBA's patented non-crush technology. Full corrugated board integrity and quality is now assured throughout the process – from initial feed through printing, slotting, die cutting and folding to stacking. True non-crush, from start to finish – shaped by innovation.

Superior performance right down the line

Each stage and unit of the EMBA QS Ultima™ is optimised to sustain the integrity of corrugated board including light grade materials. This ensures an end product that satisfies the most stringent BCT/FCT/ECT standards with exceptional print quality. The machine's modular open-access design, servo-operated drive and sensor control systems ensures safe and simple monitoring of performance parameters. The exceptionally functional and logical operator interface also makes production quick and easy.

Non-crush feeding

Thanks to innovative vacuum servo technology, the Ultima Feeder™ needs no feed roller. This means crush-free performance and enhanced feeding register accuracy, even with light grade corrugated board at high speeds. The all-servo



EMBA's patented **Non-Crush Converting™** technology preserves the geometry and strength of the corrugated profile for optimum box performance and significant savings in material costs.

five axis feed table, featuring an extended feeding stroke, ensures trouble-free feeding of all types of sheet.

Crystal-clear print quality

EMBA top-print technology, with its practical open-access format allowing kiss touch printing, is already an industry benchmark. With the introduction of the EMBA QS Ultima™ comes RDD (Real Direct Drive) technology. This innovation integrates the servo motor with the printing cylinder, for enhanced print register accuracy, print length compensation and printing plate height variation correction. Other benefits include a reversible ink pump and optional self-adjusting chamber-blade and sheet-cleaning system.

State-of-the-art slotting unit

The EMBA QS Ultima™ incorporates the world's most advanced slotting unit, the Magna VSC Slotting unit (Vacuum

Slotter Creaser). EMBA's unique vacuum transport system ensures superior sheet control throughout the unit. Combined with larger diameter creasing heads, this provides excellent folding and very close die-cut register. The many benefits of this unique design include open-top access to ease maintenance, creasing profiles that are easily changed to accommodate different corrugated board grades and dual slotting shafts; – all advantages possible with the Magna VSC Slotting unit.

Smooth folding and stacking for a fast finish!

Today's high speeds pose a real challenge when folding medium and large sheets – unless equipped with the EMBA APS Folding unit (Automatic Panel Support), designed for the highest production speeds. Last, but not least, the high-performance Counter-Stacker effortlessly handles all grades of corrugated board in the most complex die-cut formats.

The intelligent way to speed production

In the capital-intensive converting industry, speed is good and intelligence even better. However, for long-term commercial success, flexibility is the key. The industry's substantial equipment costs make high capacity utilisation essential. The speed, intelligence and flexibility of the EMBA QS Ultima™ enable rapid and precise adjustment to the latest market trends and demands. Whatever the size or grade of corrugated board to be converted, however advanced the print requirement, the EMBA QS Ultima™ will handle it superbly. This means satisfied customers with optimised machine utilisation.

Minimal set-up time

The EMBA QS Ultima™ is designed for maximum production output with the shortest set-up time, making it ideal for short order sizes required by just-in-time demands. Combining advanced digital communication with an excep-

tionally user-friendly operator interface, the highly automated and servo controlled EMBA QS Ultima™ cuts setting time to a minimum. Though easy to use, the EMBA Operator Interface is highly sophisticated, permitting precision setting of operating parameters. The machine can easily be set for 50 or more separate orders during a single eight-hour shift! The Operator Interface provides online adjustment of machine settings, comprehensive process monitoring and access to a database of 100,000 repeat orders. This is the sort of speed and flexibility that guarantees success. It's fast, intelligent and flexible.

High-speed production

The EMBA QS Ultima™ is fast moving, as well as fast thinking. With its unique vacuum transport system providing very fast converting speeds, it gives the highest productivity on the market.



High productivity thanks to outstanding production speeds and the shortest set-up times.

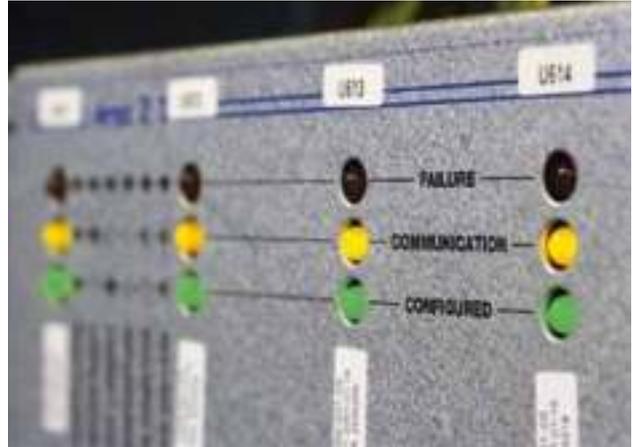
Intelligent design...

One of the most technically advanced machine platforms on the market, the EMBA QS Ultima™'s short set-up times, high running speeds and consistent product quality make it the intelligent choice.

The user-friendly Operator Interface, digital control servo-driven technology and advanced communication interface enables integration into a broader interactive network. This opens up a wide range of communication possibilities.

...and smart communications

A direct link between the EMBA QS Ultima™ and the factory's production control system enables an exchange of data on queued orders, job schedules and production statistics via the EmBase interface. An interactive network allows access to EMBA's online support, securing the entire production process. Whatever the geographical location, EMBA will be right there, via a secure Internet link.



Servo technology and **advanced communication** throughout the entire production process.





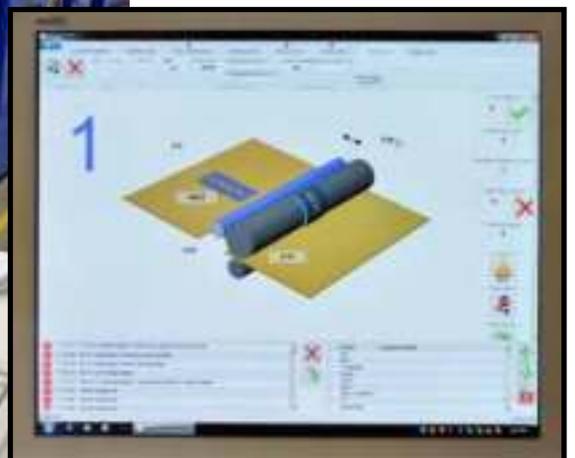
Ultima Feeder™



RDD Real Direct Drive



Internal Die Cutter



Operators interface

Counter-Stacker

The production of complicated die-cut layouts and high quality printing at top speed is ensured by the Counter-Stacker unit, featuring counting, squaring and stacking of the boxes, performed in a smooth single downstacking motion. This provides the accuracy and reliability required for the outstanding productivity achieved in the EMBA QS Ultima™.

APS Folder

The Automatic Panel Support (APS) folder with vacuum transport throughout the section contributes to the Non-Crush Converting™ concept. This combination ensures superior folding accuracy, from lightest to heaviest corrugated board qualities and smallest to largest box sizes, for unchallenged productivity.



EMBA 245 QS Ultima™

QSD Die-Cutter

High speed die-cutting of sheets with complex layouts for all sizes and corrugated board configurations is easily accomplished in the sturdy Quick-Set™ Die-Cutting unit. An optional waste evacuation unit is available for the toughest jobs, and pre-mounting of tools on the tool cylinder in the standby position makes the unit fully Quick-Set™. For complex internal die-cutting requirements there is an optional bottom Die-Cutting unit available with an integral waste evacuation unit and quick-change tool-mounting system.

Magna VSC Slotter

The Magna VSC-Vacuum Slotting Creasing unit with the unique vacuum transport of sheets through the unit produces optimised clean slotting and creasing of all corrugated board qualities. This state-of-the-art technology breakthrough for corrugated board conversion represents another EMBA milestone innovation, making Non-Crush Converting™ throughout the EMBA QS Ultima™ machine a reality.

EMBA

Operator Interface

The Operator Interface is the link between the operator and the machine, consisting of monitor and keyboard controls for quick and simple use. The easy to learn and use software makes the operation of the machine extremely user-friendly, a must for real Quick-Set™ setting of new orders or repeat orders instantly downloaded from the article database. During production, the operator will supervise and control the entire machine through the interactive Operator Interface.

Support menus for operation, service and maintenance instructions, together with logging and diagnostics of machine data are also included, providing an intelligence platform for comprehensive machine and production management. The Operator Interface optionally also features communication access to factory production control network systems, auxiliary equipment and VPN-internet connection for remote EMBA online support.



RDD Printer

The EMBA RDD – Real Direct Drive servo technology integrates the servo motor with the print cylinder for excellent print register accuracy, also featuring print length and printing plate height compensation. The EMBA top printing concept with space and access between units for premounting of printing plates enables true Quick-Set™ setting of the machine.

Ultima Feeder™

The EMBA Ultima Feeder™ is the revolutionary innovation for non-crush feeding of sheets without a feed roller, making true Non-Crush Converting™ possible. Advanced servo and vacuum design solutions ensure high-speed performance with superior feed register for all paper qualities and sheet sizes.



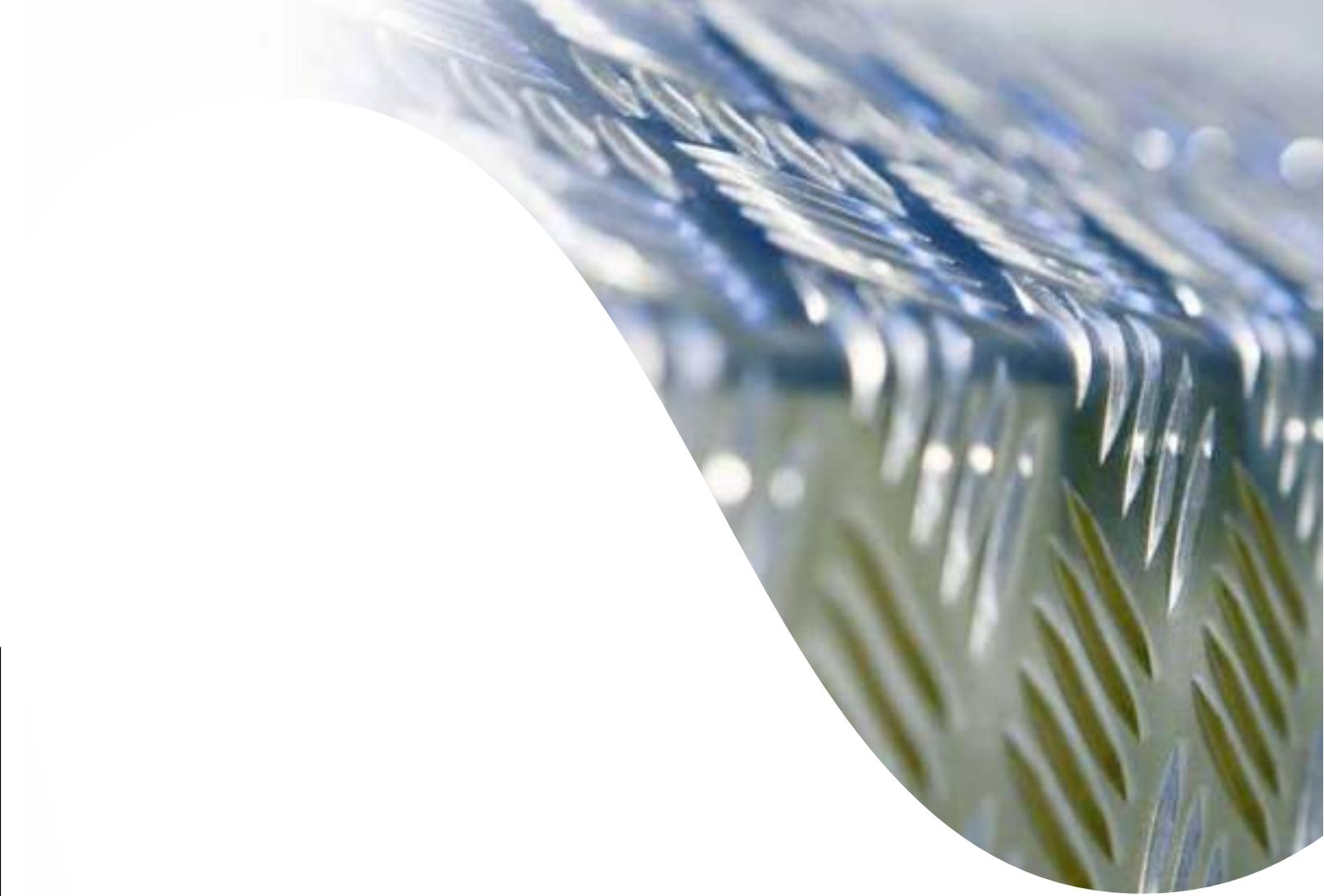
Intelligence/Control



Vector™ Folder (245)

Magna VSC Slotter







Designed for sustainable evolution

Transforming a vision into industrial excellence is an organic process – like creating a pearl from a grain of sand. The EMBA QS Ultima™ features a whole range of technical improvements that enhance productivity and product quality. A powerful reason to invest. But, like the oyster, its true value – though less obvious – is much greater. The industrial climate is constantly evolving. Success has always been about transforming challenges into opportunities: for industry, these challenges now include sustainability, energy efficiency, environmental impact and occupational safety. The pearl at the heart of the EMBA QS Ultima™ is EMBA's evolutionary Non-Crush Converting™ technology

platform, designed to evolve with industry's needs. Technical innovation and commercial development in perfect harmony. The EMBA QS Ultima™ is future-ready.

Lean

Intelligent and fully-integrated, EMBA QS Ultima™ servo technology continuously monitors and optimises all operational parameters. This intelligent machine platform, with its advanced servo motor technology, minimises material costs, reduces waste and energy costs, all vital factors for enhanced profit. EMBA QS Ultima™ technology offers the lowest operational costs on the market.



Cost-efficient: minimal waste and optimal board utilisation for consistent raw material cost savings.

Sustainable: strong focus on reduced energy and raw material consumption.

Ergonomic: designed to be easy to use with enhanced operator safety.

Clean

The EMBA QS Ultima™ is a clean machine. Its advanced technology cuts waste, effluents, emissions and other factors affecting environmental impact. A reversible ink pump and high-efficiency washing system reduces ink loss, water consumption and also waste ink treatment costs.

Safe

The user-friendly EMBA QS Ultima™ combines ergonomic design with same-side access, enabling operators to maintain visual contact at all times. Enhanced operator safety is provided by a comprehensive interlocking safety system and elimination of the feed roller inlet nip point, marking a major safety improvement for feed unit operators. Modular design, top-access, safety systems and

Non-Crush Converting™ technology ensures the EMBA QS Ultima™ is safe and easy to operate.



EMBA QS Ultima™

The online inline machine

The fully integrated servo platform and modular design of the EMBA QS Ultima™ offers outstanding capacity and flexibility. Fast and cost-efficient, the EMBA QS Ultima™ can produce all types of boxes, from the simplest brown box to the highest quality printing and most complex die-cut formats. The EMBA Operator Interface provides comprehensive control throughout the entire converting process, offering optional interfacing with auxiliary equipment, from pre-feeder to bundling machine and palletiser.

From the high-speed non-crush Ultima Feeder™ to the efficient Counter-Stacker unit, the EMBA QS Ultima™ is optimised for consistent high productivity. High paper utilisation, low energy consumption, extreme reliability, minimal waste generation and self-diagnostic capability make it exceptionally cost efficient. And the EMBA Comfort program is your assurance that the EMBA QS Ultima™ will continue to be an excellent investment, throughout its entire life cycle.



EMBA 175 QS Ultima™

EMBA



COMFORT

An investment in the future

Installation and commissioning mark only the first steps in a creative and ongoing partnership. When you invest in an EMBA converting inline machine, you invest in the future! With the EMBA Comfort customer support program, you can be certain that your EMBA QS Ultima™ will perform to full capacity throughout its entire life cycle, benefiting from the latest know-how and technical innovations. The EMBA Upgrade Program, featuring the latest technical upgrades from the EMBA research team, makes sure it

stays that way. When combined with the EMBA Professional Service Program, production optimisation is assured. The EMBA Original Parts Program is your guarantee that all spare parts supplied are designed for your EMBA QS Ultima™, to the most stringent manufacturing specifications and standards, for trouble-free replacement. Once your production team has completed its EMBA Academy Training, you can rely in the knowledge that your EMBA QS Ultima™ is being operated by EMBA-trained specialists.



The shape of innovation

This brochure addresses benefits such as speed, Quick-Set™, flexibility and energy efficiency: all crucial to a healthy bottom line, and all contributing to greater cost-efficiency, environmental sustainability and operator safety. However, the outstanding benefit of EMBA's new Non-Crush Converting™ technology is improved box performance.

By preserving the geometry of the corrugated profile, EMBA QS Ultima™ technology optimises paper utilisation, producing significant savings in material costs. This redefines operational excellence, reasserting the shape of innovation – and securing the future of the ultimate sustainable packaging material: corrugated board.



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