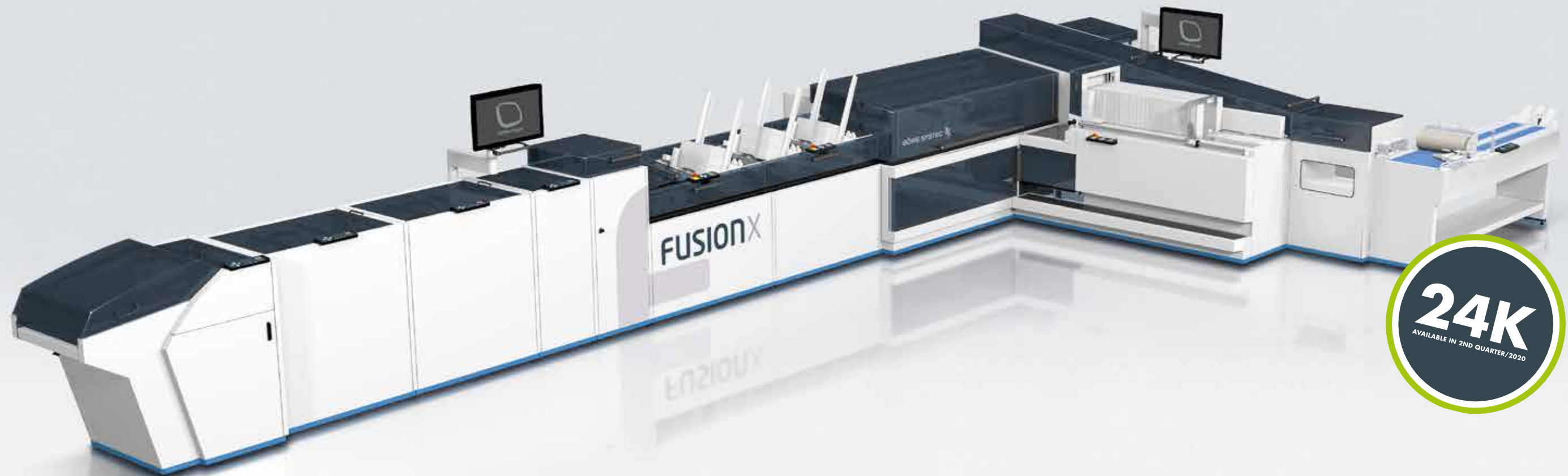


# One system for all applications



B6+→B4  
#7 3/4→Flats



15 mm/0.59"



100,000 sheets/h



24,000 env/h



≥ 1 channel

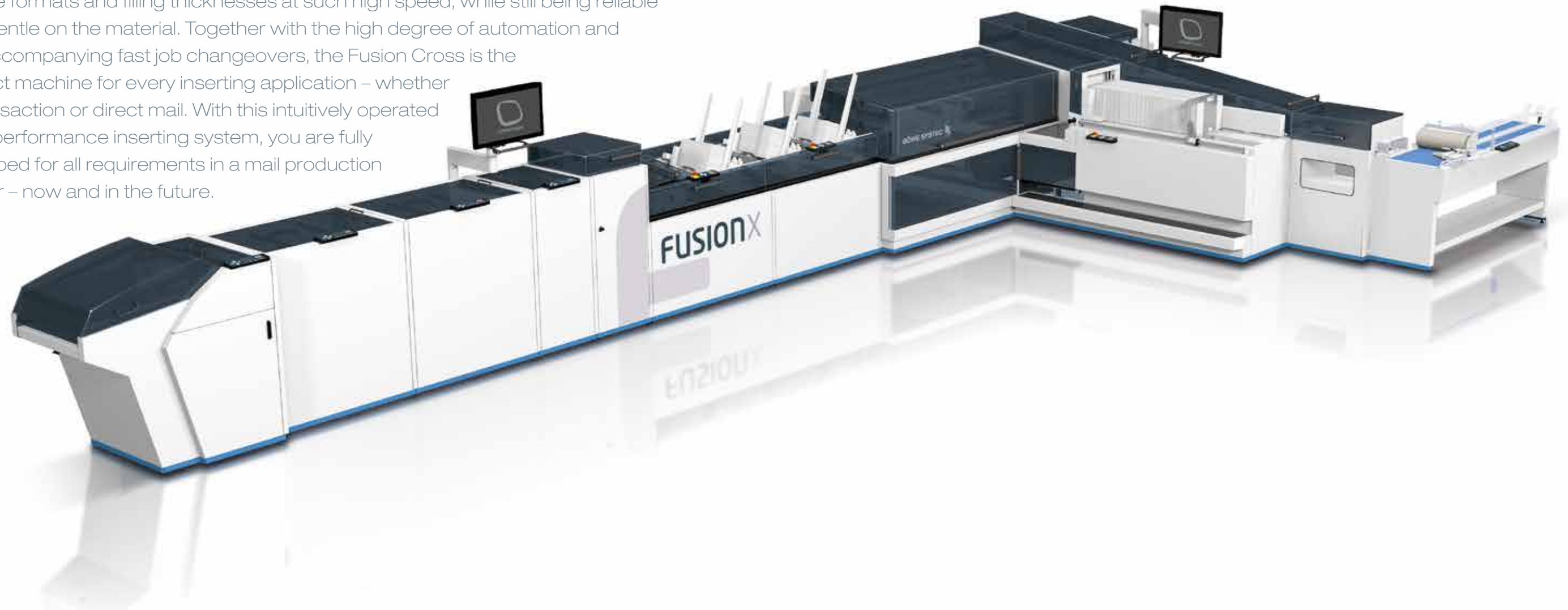


15 mm/0.59"

# FUSIONX

# A revolutionary approach to inserting

With the introduction of Fusion Cross, a new era in inserting technology has begun. No other system is as flexible or handles such a wide spectrum of envelope formats and filling thicknesses at such high speed, while still being reliable and gentle on the material. Together with the high degree of automation and the accompanying fast job changeovers, the Fusion Cross is the perfect machine for every inserting application – whether in transaction or direct mail. With this intuitively operated high-performance inserting system, you are fully equipped for all requirements in a mail production center – now and in the future.



**Flow-Principle** for gentle treatment of materials with safe processing and with the highest output



**Broadest format and filling thickness spectrum**, including C4, Flats and Stretch in the high-performance segment



A wide variety of feeder technologies and the open device carrier concept offer the **highest degree of enclosure flexibility and investment protection**



**Single Machine Type Strategy (SMTS)** – a single high-performance inserting system for nearly all applications



Self-explanatory, **easy and intuitive operation** thanks to BÖWE Cockpit



Universal **modularity and a multitude of options** allow for **a high degree of automation** in the production process

## The Flow-Principle

### The discovery of slowness

With the “Flow-Principle”, BÖWE SYSTEC has introduced a completely new approach to inserting, letting the whole production process flow smoothly. Inserting speed is reduced by a factor of 4.5 to allow for more time during the inserting procedure. Even at the highest speeds, this groundbreaking new inserting principle ensures especially reliable processing – gentle on both materials and machine. The required integrity is ensured by intelligent system control and monitoring along with continuous document tracking throughout the production process via the connection to our powerful software.



With Fusion Cross, BÖWE SYSTEC has reduced by a factor of 4.5 and harmonized the overall speed of insertion by maintaining the material flow at a constant speed which, as a result, leaves substantially more time to perform the actual inserting procedure. The individual processing steps take place with slightly offset timing, catching up with each other

and smoothly merging into each other. Fusion Cross discovers slowness as a means to increase productivity and output considerably.

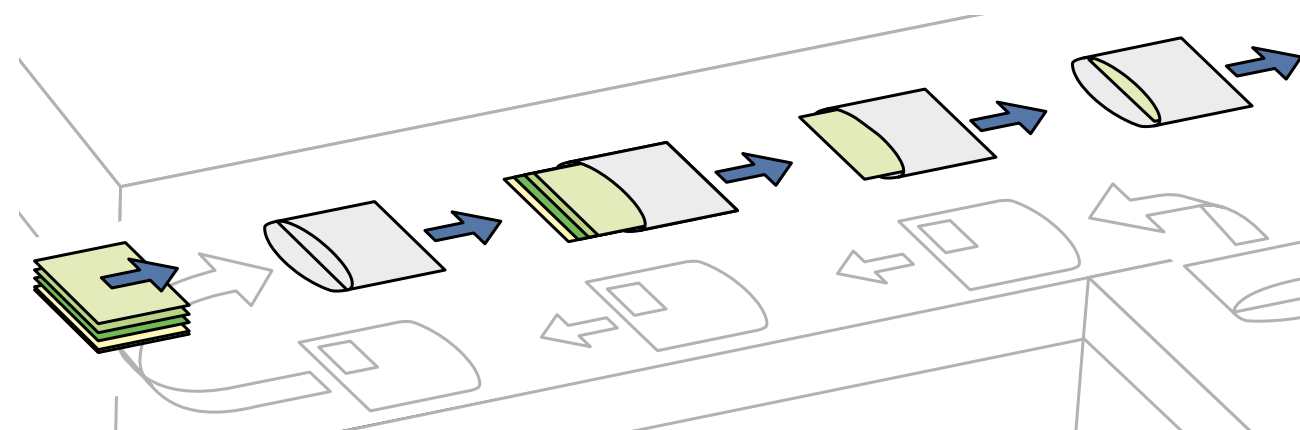
› Smooth material flow

› As processing takes place face down, enclosures can be easily fed onto the documents

› Maximum process security by optimization of material speeds

› Gentle and reliable processing of common and challenging materials due to the protective guiding elements

› Reliable production due to low-wear servo technology and gentle processing

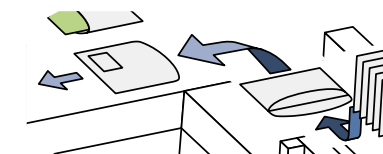


## Utilizing

### the laws of physics

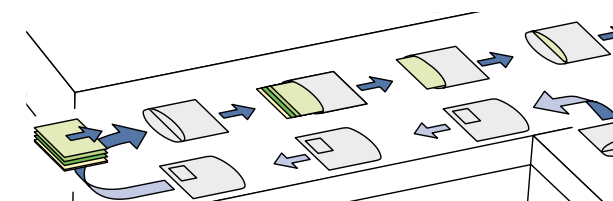
#### 1 Redirecting and turning

- › Process implemented in Flow-Principle for the first time
- › 90° redirection of open, empty envelopes at full speed
- › Format-independent method requiring no adjustments



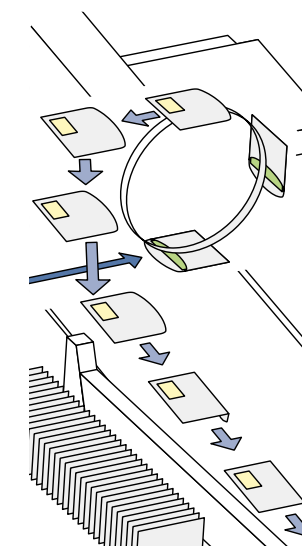
#### 2 Inserting

- › Patent-pending procedure for gentle opening and filling of envelopes
- › Filling material being processed moves slightly faster and catches up with the envelope
- › Adjusted inserting procedure for higher security
- › Gentle guidance of filling material and controlled inserting – even for difficult materials or high filling thicknesses



#### 3 Redirecting and closing

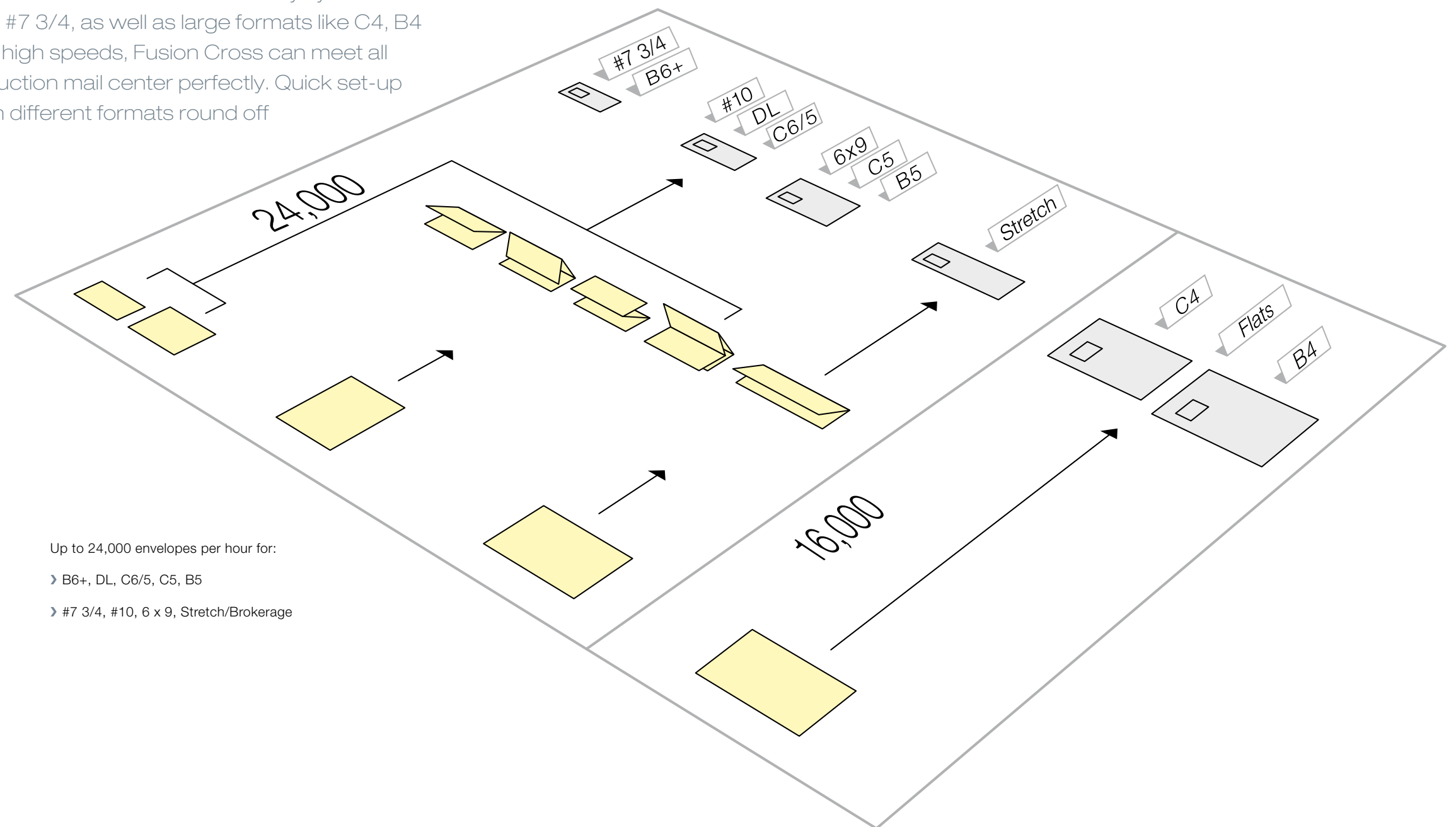
- › Redirection of open, filled envelopes at full speed
- › Hassle-free turning of rigid filling material
- › Envelopes closed and stacked face up, ideal for post-processing



## The broadest spectrum of formats

in the high-performance segment

No other high-performance inserting system is as flexible and processes as broad a spectrum of envelope formats as Fusion Cross. This revolutionary system can handle both small formats like B6+ or #7 3/4, as well as large formats like C4, B4 or Flats without any difficulty. Even at high speeds, Fusion Cross can meet all the diverse requirements of the production mail center perfectly. Quick set-up times and easy changeover between different formats round off the Fusion Cross portfolio.





## With greatest enclosure flexibility prepared for all future applications

Fusion Cross bridges the gap between transactional and direct mail: high-integrity processing of important documents and non-standard enclosures while retaining the highest productivity. Thanks to its unique inserting principle and the variety of enclosure feeders, this inserting system can process an extraordinarily broad range of enclosures with the highest possible output. No material is too difficult for the Fusion Cross and its enclosure feeders. With its open device carrier concept, which allows for free configuration and easy changeover between various enclosure feeders, it also offers the highest possible flexibility.

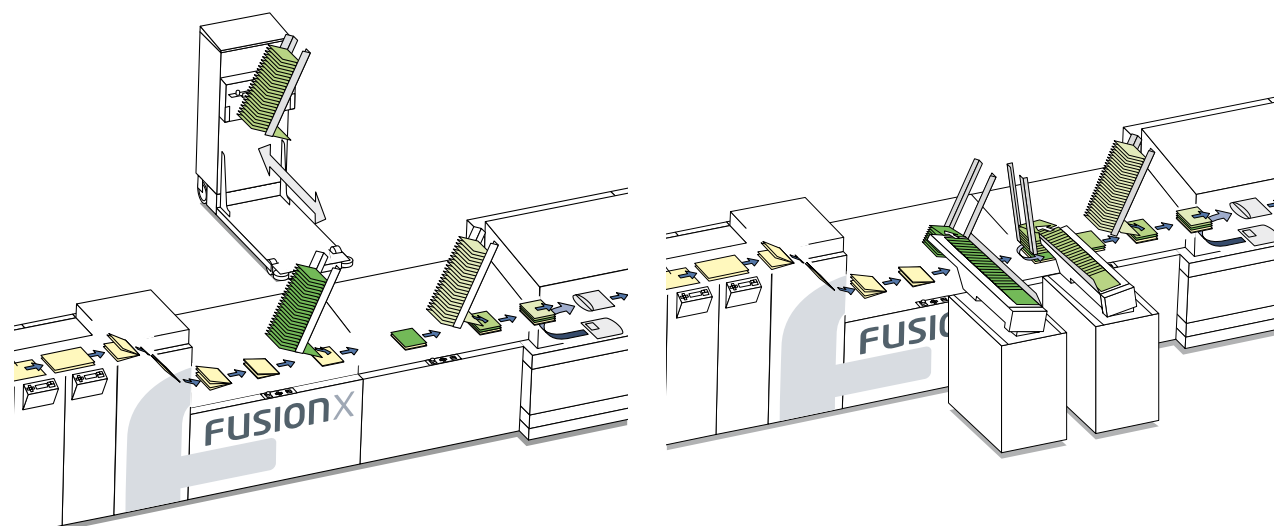


Regardless of what particular requirements you expect tomorrow, with the open device carrier concept of Fusion Cross you are well prepared for all current and future applications:

- › No matter if it is thin, thick, rigid, smooth, folded or unfolded: Fusion Cross processes a wide range of enclosures up to 15 mm and 1 kg absolutely reliably

- › Fast and simple exchange of the enclosure feeders thanks to the open device carrier concept, so that they can be flexibly used on other machines
- › Friction or rotary feeder for optimal enclosure processing
- › Friction feeder with optional pre-stacker unit for enclosures difficult to separate
- › Autoloader increases stacking capacity

- and reduces the workload for the operator with maximum output
- › Integration of devices for special applications or cameras is possible at any time
- › Integration of object feeders for advertising or direct mail
- › High degree of investment protection
- › System can be retrofitted any time



Thanks to the open device carrier concept, enclosure feeders can be arranged and exchanged as required

The autoloader increases the stacking capacity of the enclosure feeder

## A high-performance inserting system for all applications

Fusion Cross fulfills all the requirements crucial to the success of modern mail production with its uncompromising performance characteristics, a unique inserting principle, and high flexibility in handling enclosures. Fusion Cross performs almost every application required in production mailing and allows full operational control – irrespective of the size of the production site and number of systems. This allows a single Fusion Cross system to displace multiple existing inserters.

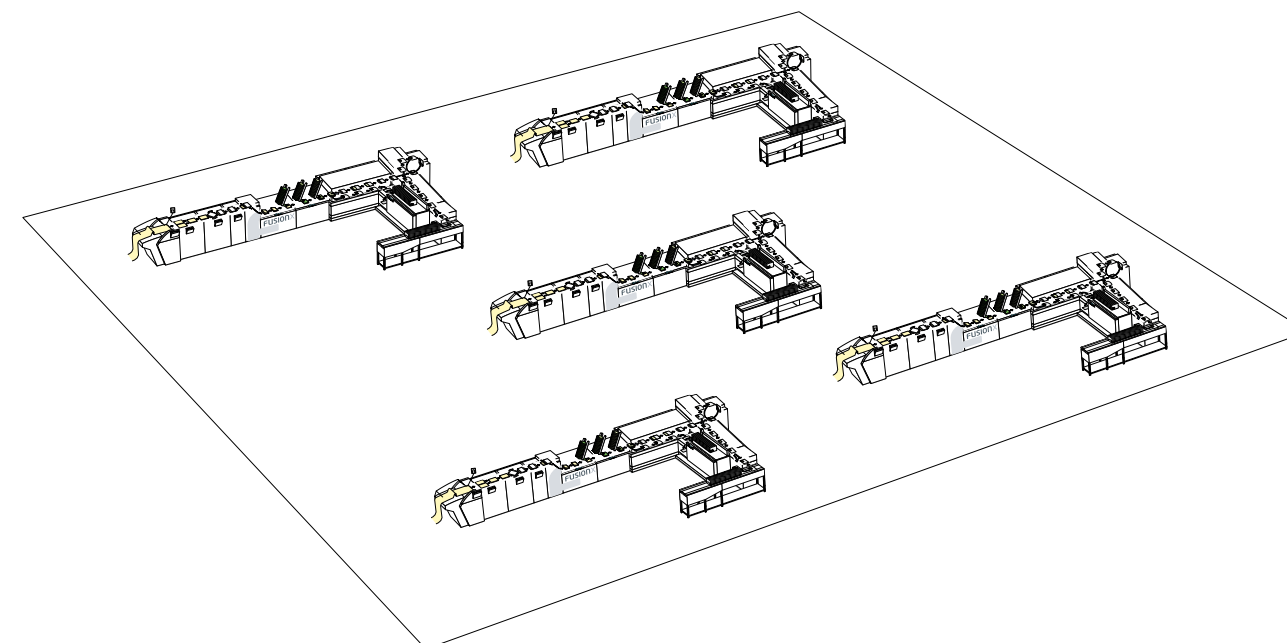
### 1

SMTS – Single Machine Type Strategy: a high-performance inserting system for all applications.

- › Only one type of machine required to cover almost all applications of the mail production centers
- › With its uncompromising performance, Fusion Cross can replace multiple other systems

- › Minimal training requirement for only one type of machine
- › Flexibility in personnel, shift, and material planning
- › Reduction of service and maintenance costs

- › Short changeover times and reliable production
- › Easy transfer of material descriptions to machines of the same type
- › Efficient capacity utilization of all systems



BÖWE Cockpit

Smart man-machine interface

With its completely new user interface, Fusion Cross can be operated easily and intuitively. State-of-the-art touchscreen displays assist in user guidance. An interactive help function supports in set-up and troubleshooting. Setting up new applications is simplified by material descriptions and recipes which are composed of pre-defined material modules. The machine also adapts itself, to the greatest extent possible, to the materials being processed. The standard BÖWE Cockpit for Fusion Cross consists of three apps: System Operation, Recipe and Report.



- BÖWE Cockpit System Operation** guides the user through job processing. An intuitive and virtually text-free user interface guarantees a user-friendly experience. The help function offers visual support to assist in manual loading and troubleshooting.
- BÖWE Cockpit Recipe** assists the user in describing the material to be processed in order to prepare the system for the actual production process. Recipes consist of pre-defined material modules (e.g. documents, enclosures, envelopes).
- BÖWE Cockpit Report** for job and system reports.



BÖWE Cockpit Recipe simplifies the system set-up



BÖWE Cockpit Report for detailed production analysis

Processing small and manifold jobs

profitably

Printing and mail-handling service providers know the problem: printing and inserting applications are becoming more individual and more varied, and individual jobs are becoming smaller as a result. This means more set-up time stops and longer downtimes for inserting systems, resulting in lost productivity and revenue. In addition, manual processes make production more complex and cost-intensive and increase the susceptibility to errors. BÖWE SYSTEC has developed a software that automates these processes and turns the time-consuming processing of variable small runs into profitable high-performance production. Downtimes and errors are minimized, meaning that the systems are used more effectively.

- › Bundling of many different small jobs onto one roll of paper without manipulation of the print run results in efficient processing at a maximum speed of up to 24,000 envelopes per hour

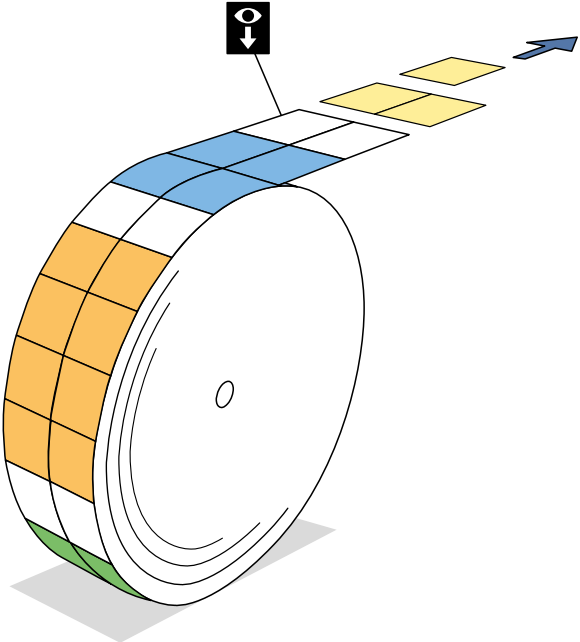
› The system automatically detects when a new job begins and makes any adjustments automatically

› Blank and banner pages on a roll are automatically identified and bypassed at
- high-speed with the help of the automated software

› Manual interventions by the operator are reduced to a minimum (e.g. when changing the enclosures or envelopes)

› If a manual action is required, the software guides the operator through job processing step by step and ensures a low error rate and a fast job changeover
- › Monitoring in the system ensures the highest integrity and allows for comprehensive reporting on material and job levels

› Batch data from multiple systems can be consolidated in higher-level management software such as BÖWE One and can be used for precise billing or reprint processing



# Cutting edge infeed technologies provide maximum performance

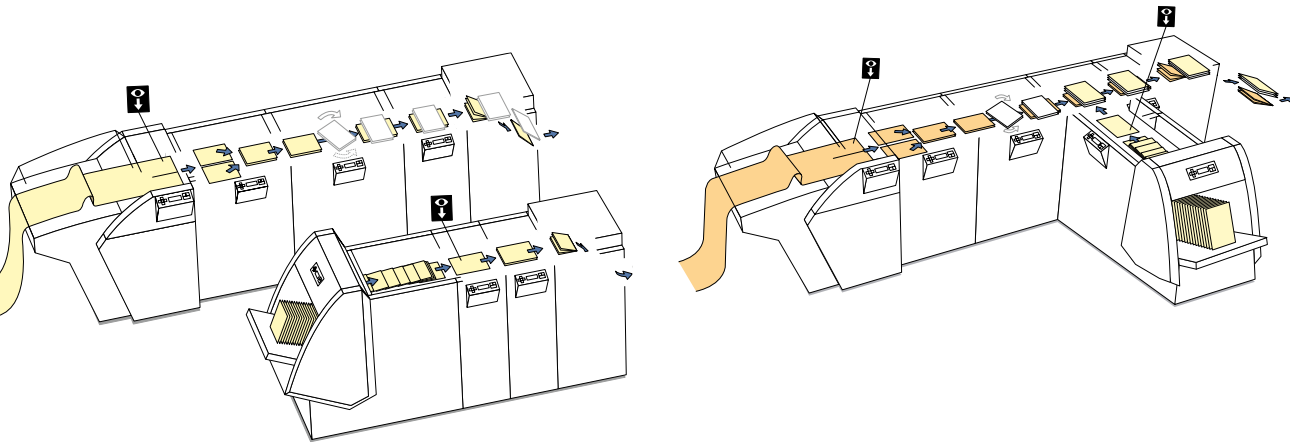
Fusion Cross' sophisticated document input makes this system a powerful partner for high-performance applications. Infeed channels in various performance classes for cut-sheet and continuous processing meet the most diverse requirements for the mail production center and ensure maximum efficiency. In continuous processing, the material is automatically turned 90° clockwise or counterclockwise as required in the input channel with the help of the integrated turning module, without impacting the speed. This allows for the processing of C4, Flats and Stretch applications while retaining the same high speed.



High rates of productivity in **continuous processing** are easy to achieve with the Fusion Cross as no manual intervention is necessary, except to change rolls. The integrated turning unit rotates the items as necessary by 90°, clockwise or counterclockwise without affecting feeder per-

formance. C4, Flats and Stretch applications can be processed through the same infeed channel as DL or #10 applications. For **cut-sheet feeding**, Fusion Cross offers the necessary flexibility for processing A4 formats of varying paper quality.

Various **dual channel solutions** combine continuous and cut-sheet processing. With this method, not only can documents from different print runs be combined, but reprints in small quantities can also be processed quickly and flexibly.



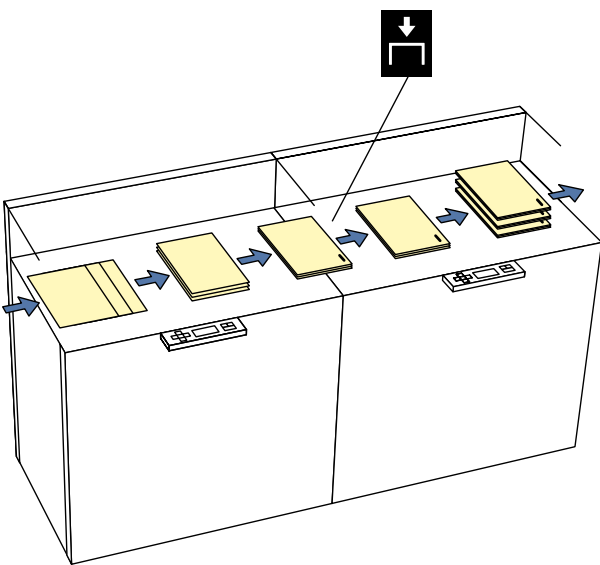
High-performance input channels for cut-sheet or continuous processing

The dual channel module combines cut-sheet and continuous processing

# Processing insurance policies the easy way

The need to assemble and mail hundreds of thousands of complex documents and policies with 24-hour service level agreements places extremely high requirements on insurance industry mailing centers. The time factor is only one of the many challenges in this highly regulated and demanding environment – the correct compilation of all relevant documents and enclosures in one envelope, often individually printed and stapled, is another. With these market requirements in mind, BÖWE SYSTEC developed the versatile assembling and stitching module for the high-performance inserting system Fusion Cross to handle the high-volume and flexible production of insurance policies and documents.

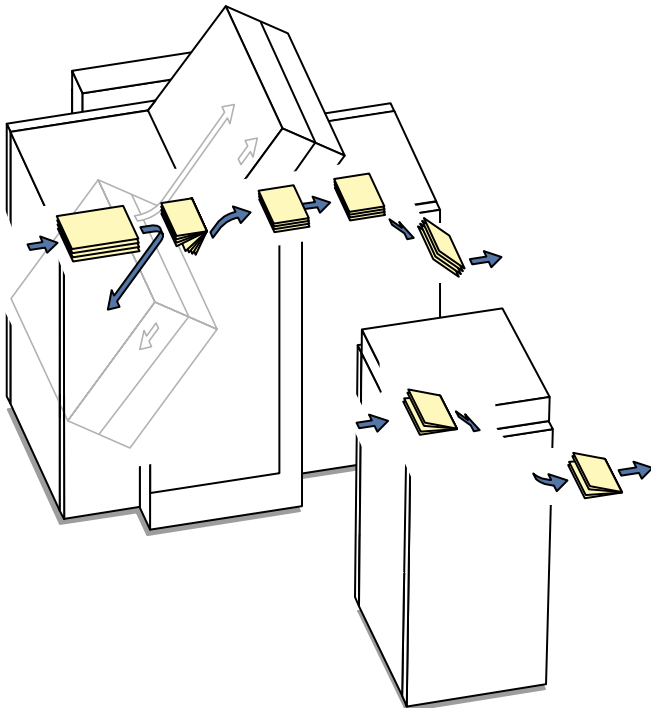
- › Equipped with a high-performance infeed channel and BÖWE SYSTEC's high-speed assembling and stitching module, Fusion Cross is the ideal system for the production of insurance policies with high page counts (e.g. handling approximately 2,300 insurance policies per hour at 30 pages per policy)
- › Subgroups of individual insurance policies (e.g. cover letter, policy, insurance card, bill, etc.) are collected in the assembling and stitching module and stapled as required
- › Staples even larger subgroups of up to 80 pages in both portrait and landscape format (A4 and US Letter)
- › Documents can be stitched or stapled from below or above, using a stitching wire or a staple cartridge
- › Multi-position stapling is available
- › A second assembly station allows the flexible compilation of documents in one envelope, whether stapled or not



# The perfect fold at maximum speed

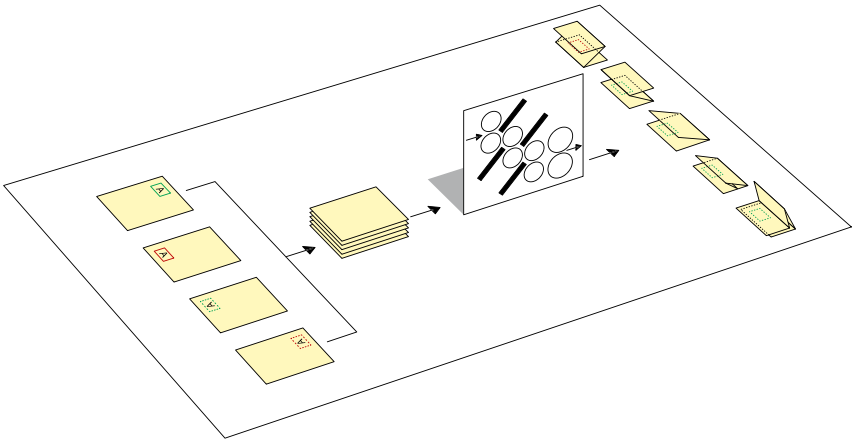
BÖWE SYSTEC offers a variety of folding units that allow Fusion Cross to achieve precise folding results, even at top speed. Equipped with powerful modules with either two or four folding pockets, it can fold up to eight or up to 16 sheets at a time. Whether Z, C, single or double parallel fold, Fusion Cross has the right solution for every application.

The folding modules include two or four pockets and ensure the highest accuracy during folding. The heavy-duty four-pocket folding unit offers great flexibility in regard to the feeding direction and the type of fold. It can fold up to 16 sheets at once (single fold). Both folding modules offer assembling before and/or after folding.



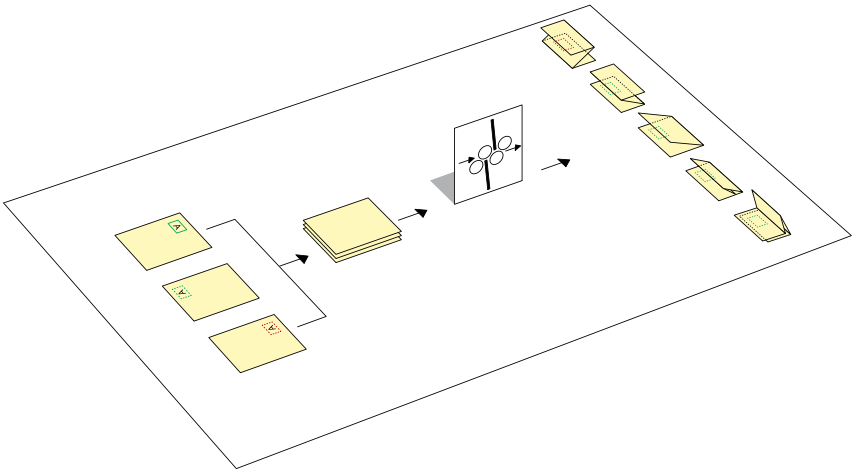
## 1 Heavy-duty four-pocket folding unit

- › Z, C, single or double parallel fold
- › Folds up to 16 sheets (single fold)
- › Four folding pockets enable a wide variety of applications
- › Integrated pressure roller ensures optimum folding results
- › High flexibility in regard to the feeding orientation
- › Assembling before and/or after folding
- › Assembling before folding in ascending or descending order
- › Servo-driven combination buckle plates with a high degree of automation enable fast set-up and prevent manual errors
- › Quick set-up enabled by automatic adjustment of the folding pockets as well as folding rollers via BIPS

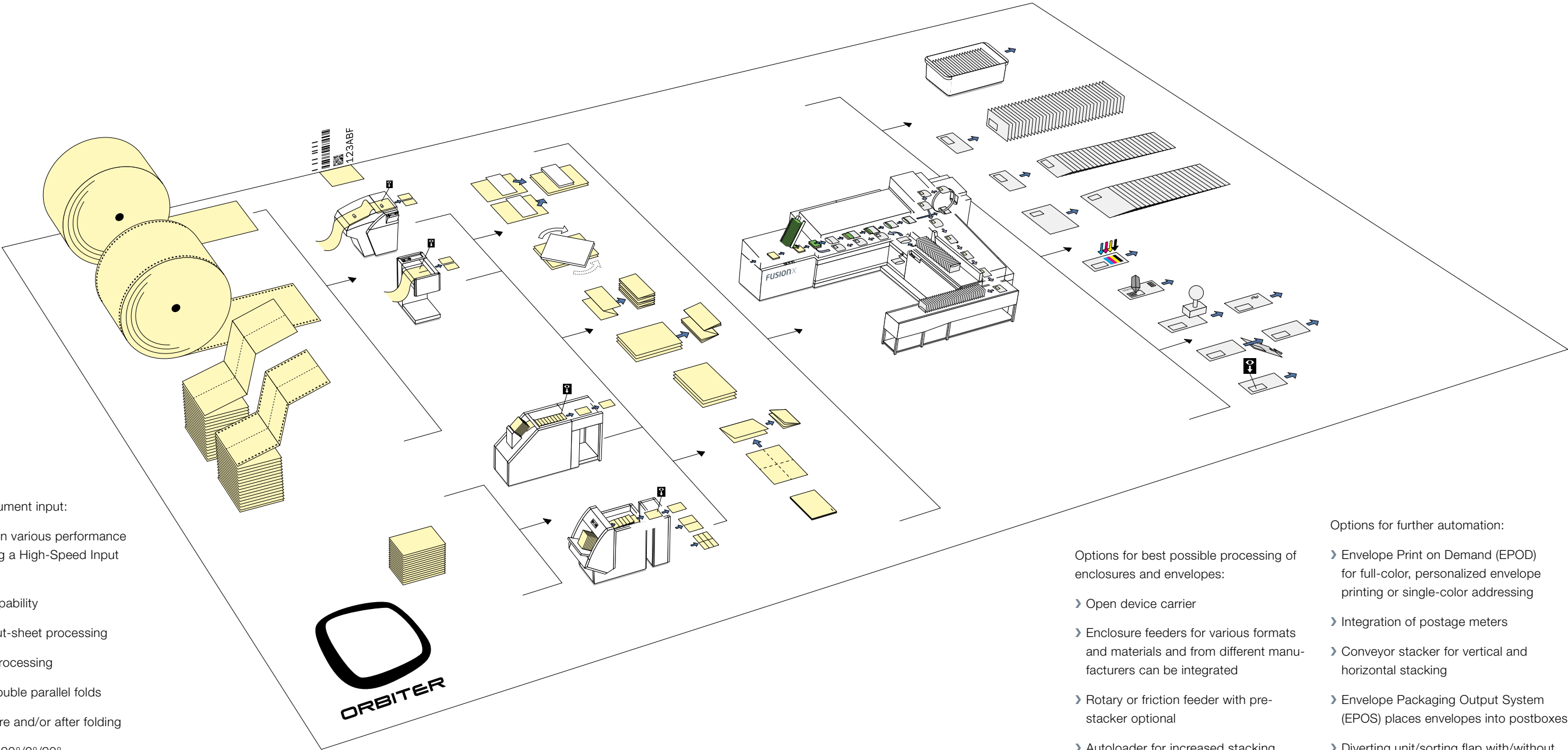


## 2 Two-pocket folding unit

- › Z, C, single or double parallel fold
- › Folds up to eight sheets (single fold)
- › Assembling before and/or after folding
- › Short set-up times thanks to the automatic adjustment of the folding pockets via BIPS





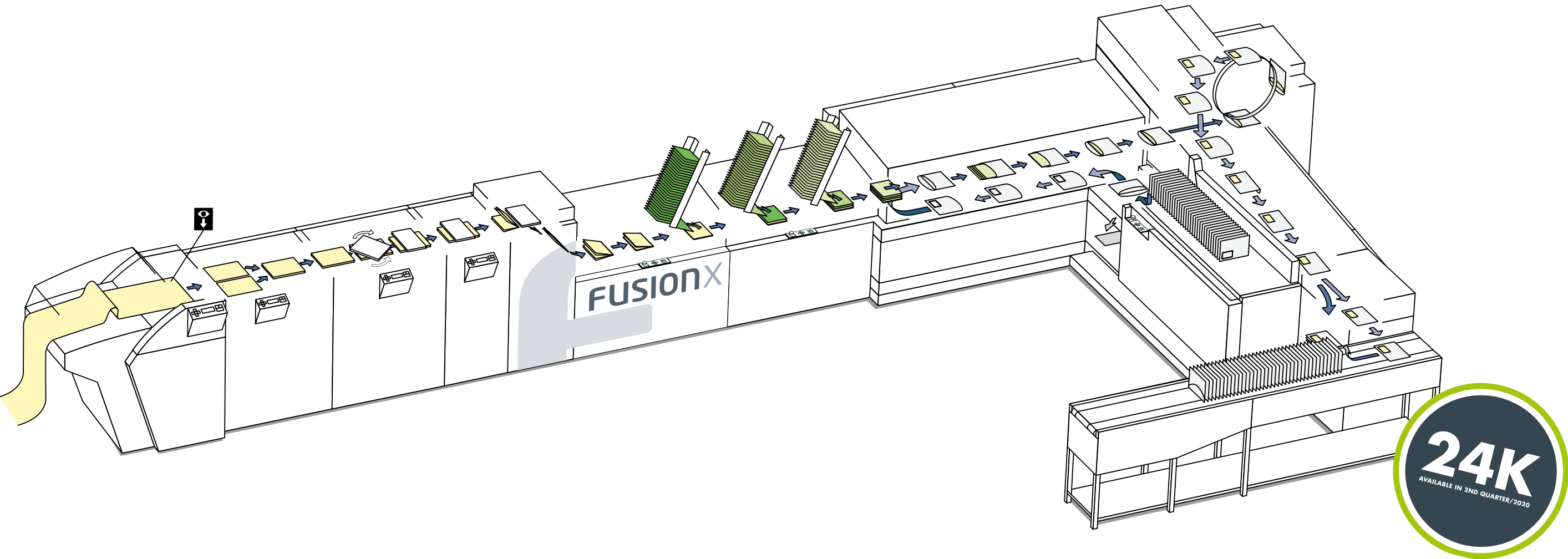


- Highly flexible document input:
- › Infeed channels in various performance classes, including a High-Speed Input Channel
  - › Multi-channel capability
  - › Continuous or cut-sheet processing
  - › 1-up and 2-up processing
  - › Z, C, single or double parallel folds
  - › Assembling before and/or after folding
  - › Turning module -90°/0°/90°
  - › Two-pocket folding unit for up to eight sheets (single fold) or heavy-duty four-pocket folding unit for up to 16 sheets (single fold)

- Options for best possible processing of enclosures and envelopes:
- › Open device carrier
  - › Enclosure feeders for various formats and materials and from different manufacturers can be integrated
  - › Rotary or friction feeder with pre-stacker optional
  - › Autoloader for increased stacking capacity
  - › Integration of special applications, such as object feeders for advertising or direct mail
  - › Reading units in enclosure or envelope feeder to enable the matching of the letter with enclosures and envelopes
  - › Assembling and stitching module for processing insurance policies
  - › Automatic continuous envelope infeed with Tornado envelope unwinder

- Options for further automation:
- › Envelope Print on Demand (EPOD) for full-color, personalized envelope printing or single-color addressing
  - › Integration of postage meters
  - › Conveyor stacker for vertical and horizontal stacking
  - › Envelope Packaging Output System (EPOS) places envelopes into postboxes
  - › Diverting unit/sorting flap with/without conveyor stacker
  - › Output reading

Technical Data



Max. performance

B6+, DL, C6/5, C5, B5	up to 24,000 env/h*	C4, B4	up to 16,000 env/h
#7 3/4, #10, 6 x 9, Stretch/Brokerage		Flats (9 x 12, 10 x 13)	

Documents from the infeed channel

Width	173 mm – 305 mm (1-up) 173 mm – 216 mm (2-up)	Height	3 4/6" – 14"
Paper weight	70 – 120 g/m <sup>2</sup>		

Enclosures

Max. number	14 enclosure feeders	Thickness	0.06 mm – 15 mm
Width	148 mm – 305 mm	Paper weight	60 – 250 g/m <sup>2</sup>
Height	80 mm – 220 mm	Special formats	on request

Envelope sizes

Width	190 mm – 356 mm	Feeder capacity	approx. 3,100 envelopes
Height	98 mm – 254 mm	Paper weight	60 – 160 g/m <sup>2</sup>

Max. inserting package

Height	up to 15 mm	Weight	up to 1,000 g
--------	-------------	--------	---------------

\* Until 2nd quarter 2020 available with a max. performance of up to 22,000 env/h, from 2nd quarter 2020 available with a max. performance of up to 24,000 env/h. When buying a system in August 2019 or later, an upgrade from 22,000 envelopes/h to 24,000 envelopes/h is possible at a later date.