Synchro

Combifeed EMT / EMQ

Kannegiesser®

PARTNER IN LAUNDRY TECHNOLOGY

Synchro

With the Laundry-Optimised Servo Drive

The variety of processed textiles is steadily increasing accompanied by a demand for higher quality and flexibility. At the same time intensified competition requires the minimization of production costs. Especially the finishing area offers opportunities for improvements.

The Synchro is the ideal feeding machine for efficient and high quality processing of a wide range of products – from tablecloth to the heavy King Size duvet covers. It is suitable for the use in different application areas: in high-performance, general-purpose or in tablecloth ironer lines.

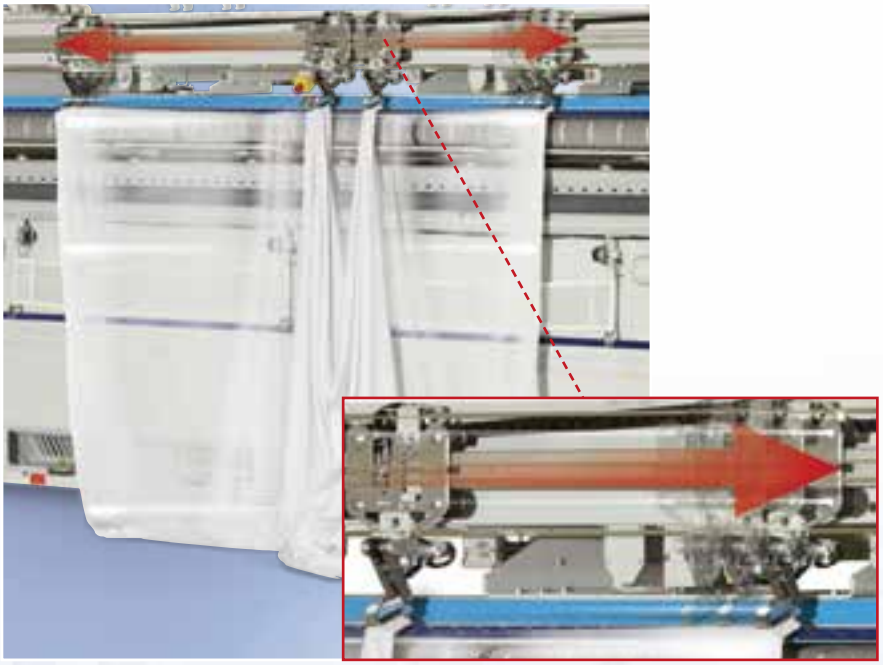
The Synchro is available with three and four feeding stations and is able to process articles in one and two lane mode.

Performance – Quality – Flexibility

The laundry-optimised servo drive

Servo drives allow the realization of highly dynamic processing: Rapid acceleration, high processing speed and short braking. At the same time a unique precision is achieved. Positions can be started quickly, accurately and repeatedly. The 30% higher dynamic of the servo drive compared to conventional drives results in a significantly higher performance and output consistency of the Synchro.

The Synchro servo-technology is adapted to the specific needs in a laundry operation – both in terms of the laundry environment as well as for the specific requirements of textile processing.



Dual synchronicity

The processing of laundry requires adapted machine technology. In every process stage the laundry item needs to be controlled and transferred in a controlled way.

The transfer of the Synchro clamps on the vacuum depositing bar is synchronous, i.e. at the same level of the deposit bar. Further guidance to the belts is achieved by synchronous laydown – at the same speed, parallel to the belts.

This dual synchronization ensures high quality and process reliability.

The Laundry-Optimised Servo Drive

The feeding operator takes the laundry item and places it with a natural movement into the automatically closing clamps of the feeding station.

After the item is entered, it is automatically transferred to the elevated Synchro spreading clamps. The station is immediately available again for the operator and infeed of the next part. This high availability of the input stations ensures a constantly high capacity of the machine.

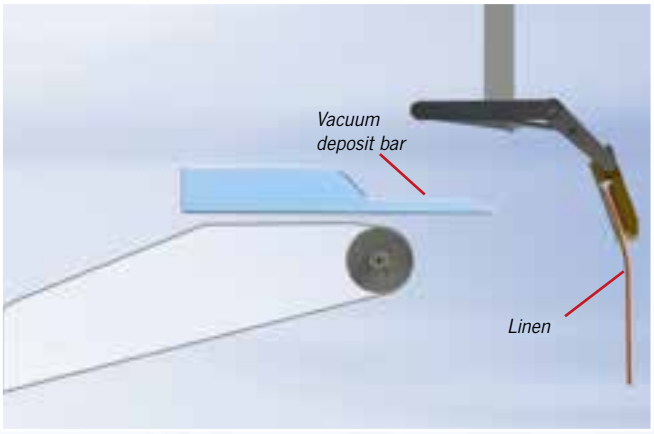
The servo-driven Synchro clamps offer a large surface clamping area and hold the item securely. During the spreading process the width of each item is measured continuously. This is a requirement for the highly dynamic and at the same time gentle spreading operation. The large acceleration and precise approach to the end position lead to short cycle times.

Synchro clamp with large surface clamping area

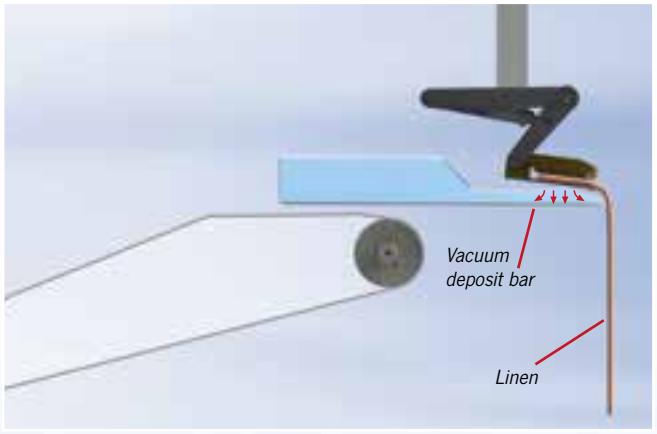
Dual Synchronicity

1st synchronicity

Item transfer from Synchro clamp onto deposit bar



Transfer position from input station

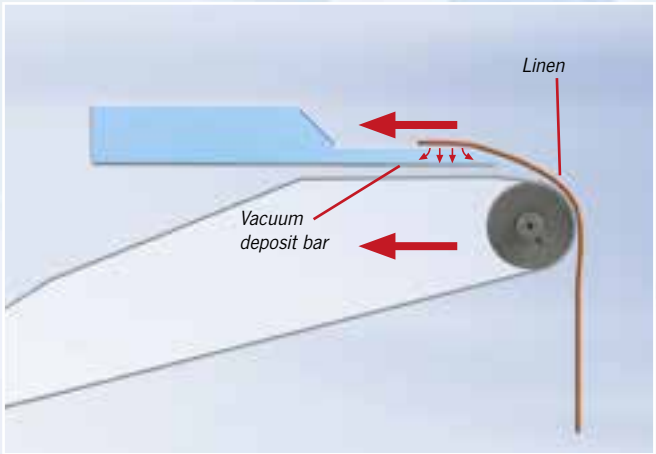


Synchronous transfer to vacuum bar

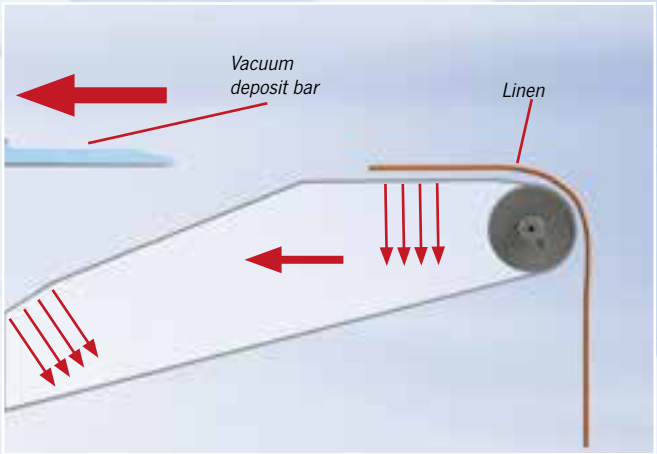
The Synchro clamps pivot horizontally in order to transfer the laundry item to the deposit bar. The spreading automatic enforces an exact straight leading edge.

2nd synchronicity

Item transfer from deposit bar onto feeding belts



Synchronous transfer from vacuum deposit bar onto the feeding belts



Safe transport on feeding belts with dual vacuum

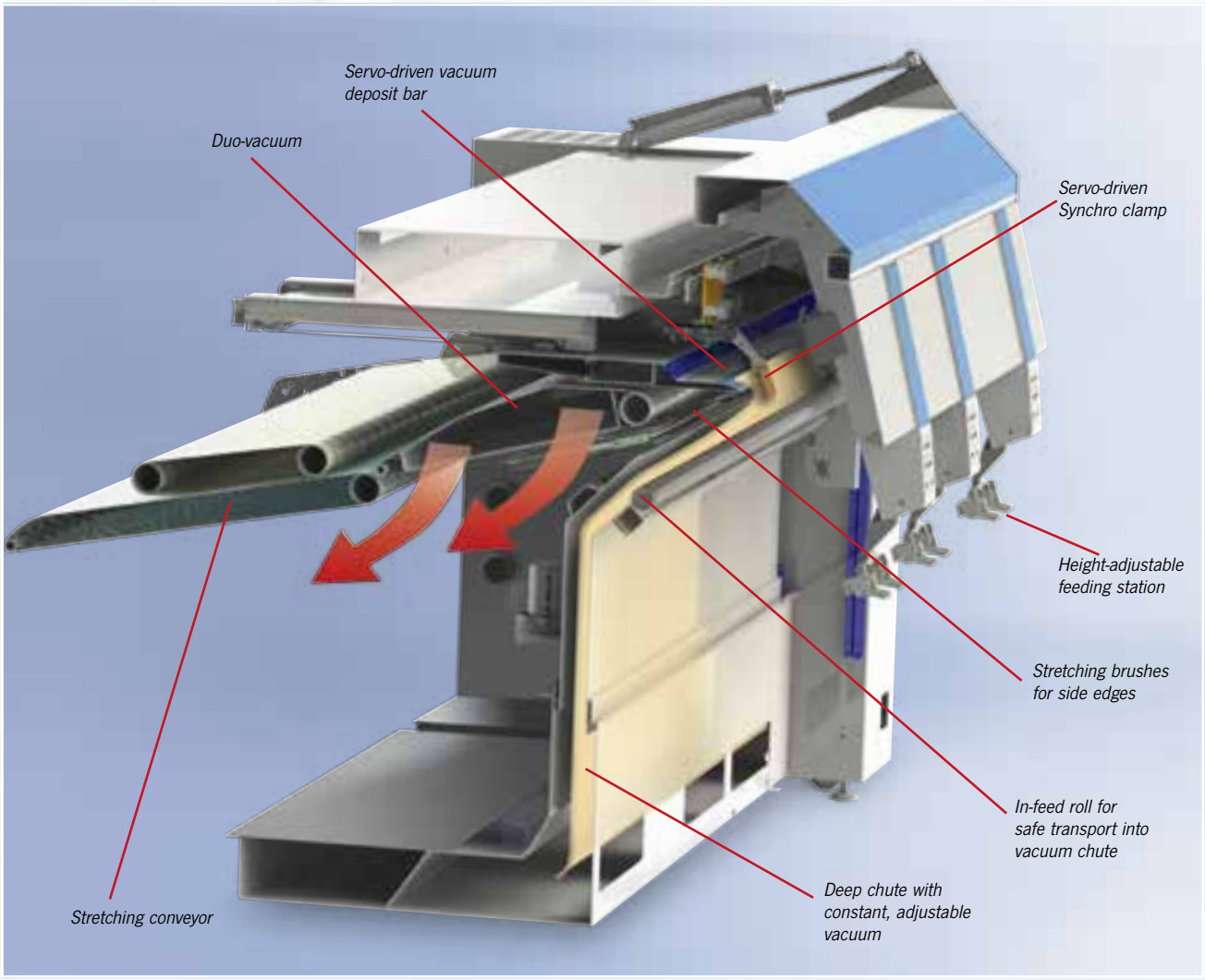
The deposit bar moves synchronously with the transport belts and places the part securely on the belt level. The required exact speed control and wide dynamic range are made possible by the servo technology – in all speed ranges.

Vacuum chute, Duo-vacuum conveyors and stretching conveyor

The leading edge of the fabric is held securely by a strong vacuum under the perforated belts while the trailing edge is guided into the vacuum chute.

The fabric is stretched by a uniform and strong suction in a deep vacuum chute. While the side edges are processed via stretching brushes, the smoothing is performed in the longitudinal direction over a stretch conveyor. The article is fixed continuously by a duo-vacuum working through the belts.

The combination of shaking-out in the vacuum chute, stretching of the side edges and smoothing in the longitudinal direction leads to an excellent and consistent quality input.



High Performance

By Optimal Ergonomics

The staff's feeding performance is determining the performance of a feeding machine. The workplace in front of the machine has to be designed in a way that hand movements are as easy as possible and reduced to a minimum. A time saving of only one second per piece can increase the overall performance by approx. 10%. The Synchro follows a consistent concept to guarantee the possibility of a constantly high performance throughout the day.

The feeding into the EasyFeed clamp becomes child's play. A guiding contour leads the article's edge fast and easily into the self-closing clamp. Any threading or time-consuming searching of the opening is no longer required. The result: a significant increase of the feeding performance.

- EasyFeed clamp with leading contour for fast feeding
- Height-adjustable stations for good accessibility
- Clearly visible feeding clamp for a fast catch
- Quick deployment of the station for continuous feeding

Operator convenience

All relevant operating instruments are located in good ergonomic positions and in the immediate vicinity of the operator. It is also possible to control the entire ironer line by means of the feeding machine.

Ergonomic operating areas

Maximum Flexibility of Use

For All Quality Levels and a Large Range of Articles

Large article range

The Synchro can process a large range of articles. From hospital sheets to heavy duvet covers to high-quality table cloths, the machine fulfils all requirements.

Small item infeed

The small item infeed from the front allows a manual transfer directly onto the table belts equipped with a vacuum holding function. The items are also shaken out by this operation method in the vacuum chute, because it is automatically lowered. The lowered table guarantees an ergonomic feeding position.

Flexibility in operation

The productivity of an ironer line is critically dependent on the number of operators. Depending on the laundry volume and range of items, it may make sense to work with only three operators at the four station Synchro. Even in a two lane operation goods are equally distributed across both lanes. As a result, a high output and optimum ironer coverage per operator is achieved.

IBT

Operation and Controlling

The machine operating system is all contained in the centrally positioned operating terminal. The operating system is designed in a practice-oriented way due to its large, easily readable display field, ergonomic push buttons as well as selection menus and operator guidance which is always present for the respective desired program.

Production mode
The desired feeding program is called up by entering the program number or selecting the program name from the program memory and is then displayed in the display field.

Programming mode
The aim of programming is to optimise the individual parameters of the feeding technology, such as spreading forces, spreading plates, delivery time etc. for the respective laundry item type. In the programming mode an explanatory short text is displayed in the display field for each parameter, consistently leading the operator to the creation of the ideal article program for each article, which is saved in the program memory after its creation and is ready for selection in the production mode at any time.

Diagnostic mode
The infeed and outfeed section of the machine controls as well as all movement sequences are visualized and provide malfunction messages with plain text, facilitating and speeding up machine maintenance.

The operating terminal makes the production, programming and diagnostic modes easy to control. Option IBT-X2

Visual Productivity Display

VPD Plus

VPD Plus

The VPD Plus shows the current capacity per work place as either an absolute value or a percentage. In principle, five operating modes can be selected:

- Target and actual performance absolute
- Target and actual performance in %
- Actual performance cumulated and target performance related to runtime (reset after change of program)
- Actual performance cumulated and target performance related to runtime (no reset after change of program)
- Quantity per program and cumulated quantity (day counter)

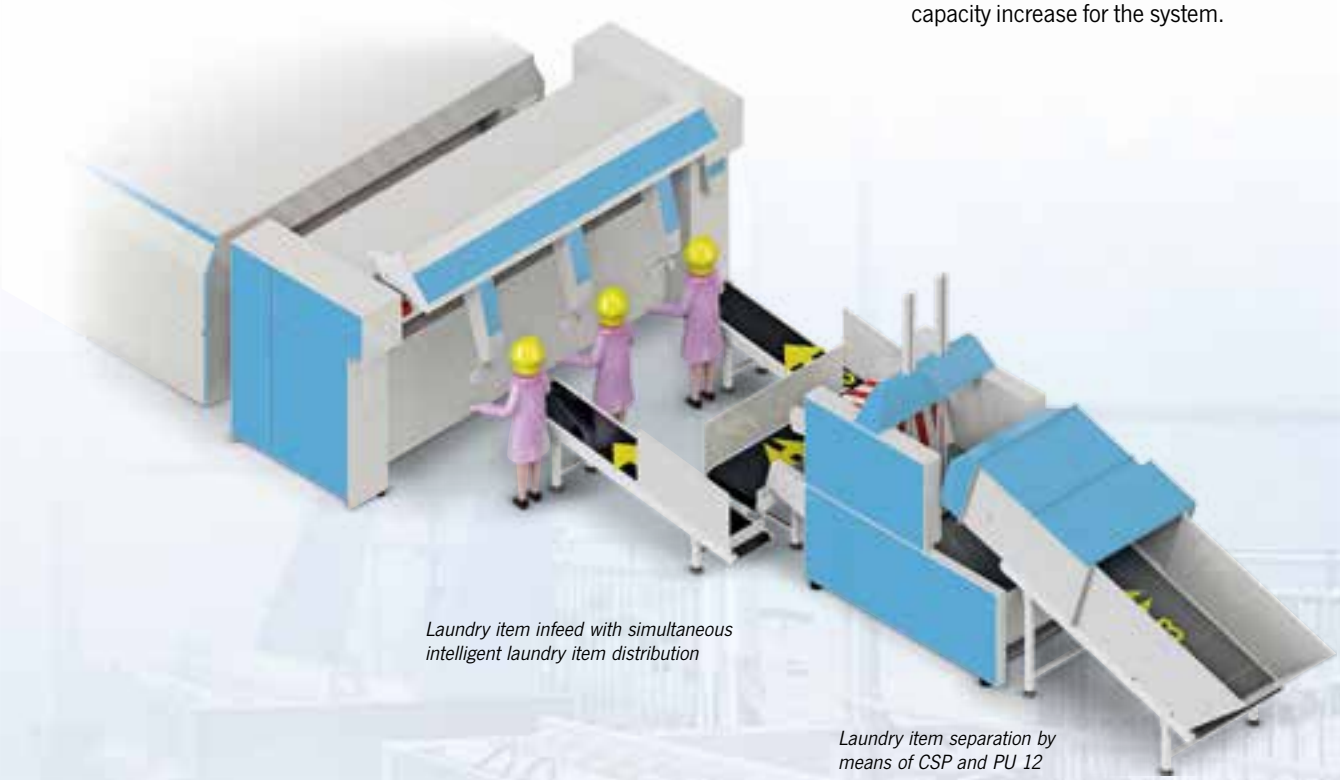
Advantages of the VPD Plus

- Current feeding capacity at one glance
- Detection of weak areas in the production flow, e.g. laundry item infeed
- Capacity increase due to a subconscious performance comparison among the operators
- Reminds the operators of the set point capacity

Productivity Increase

Through Intelligent Laundry Item Infeed and Distribution

The capacity of an ironer line does not only depend on the machine technology but also on the operators. Detangling laundry items and exchanging laundry trolleys leads directly to capacity losses. The combination of the separating machine PU 12 and feeding belts ensures a continuous supply of separated large items. The result is less strain on the operators and a significant capacity increase for the system.



Laundry item infeed with simultaneous intelligent laundry item distribution

Laundry item separation by means of CSP and PU 12

Technical data

Model	Feeding stations	Number of lanes	Working width mm (inch)				
EMT Synchro 01	3	1	3000 (118")	3300 (130")	3500 (138")		
EMT Synchro 01+2	3	1/2	3000 (118")	3300 (130")	3500 (138")	4000 (158")	4200 (165")
EMQ Synchro 01	4	1	3000 (118")	3300 (130")	3500 (138")		
EMQ Synchro 01+2	4	1/2	3000 (118")	3300 (130")	3500 (138")	4000 (158")	4200 (165")

08/2015 – 01.00

Subject to changes by development
Brochure shows optional equipment

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