

## Press Release

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### The innovative Turbo for the Cold End

**High-quality technology from Grenzebach for high-precision stacking at the end of glass lines in times of Industry 4.0: The TASS High-Speed-Stacker with a new type of double arm kinematics processes small size glass sheets with high efficiency. This novelty will be presented at the glasstec fair in Düsseldorf in October.**

It is the smart and innovative turbo among the glass stacking equipment from Grenzebach: With the TASS High-Speed-Stacker, the company is extending its portfolio for glass handling products with a high-performance new development. With the new double-arm kinematics connected to an ideal matching infeed section with accumulator, a highly efficient, fast and flexible stacking cell for small glass sizes up to 2m was created. This is the perfect solution for new float line investments, replacement of manual unloading lines, exchange of slow and inflexible stacking equipment or upgrading high-performance hardening and coating equipment. During the world's leading trade fair, glasstec, in Düsseldorf from Oct. 23 to 26, 2018, visitors to the Grenzebach booth 15D23 in hall 15 can watch a live demo of the TASS stacker.

#### **Flexible handling from top to bottom**

The ability to very quickly pick sheets from the top (air side) as well as the bottom (tin side) gave the High-Speed-Stacker for small size glass sheets its name: TASS stands for Tin-Air-Speed-Stacker. Synchronized sheet infeed towards the unloading position with simultaneous approach and picking of the product with the gripper allow for high unloading cycles. The fully integrated accumulator for sheets allows for optimum utilization; only one of the strong features with which the TASS contributes to automation at the Cold End. "Performance is improved and costs are reduced due to the fact that backwards cycling of the glass rack is no longer necessary. This task is done by the stacker kinematics from Grenzebach. Rack positioning is much easier that way", says Markus Gruber, Vice President Sales Glass Technology at Grenzebach.

#### **Precise product handling**

Glass packages can be stacked at the rack in several rows next to one another (multi-row) and even several rows on top of one another (multi-tier). The cycle times for the single sheet in one-track operation, depending on the product type, count 3 to 5 seconds, in two-track operation we have 1.5 to 2.5 seconds per plate. High quantity for highest quality: TASS stands for fast yet precise product handling.

#### **Communication in Industry 4.0**

The TASS is a high-performing link in the value-added chain of glass Industry 4.0. A new type of operational concept allows for smart HMI dialog during which the machine communicates and collaborates event-driven with the operator, of course also via mobile devices. Thanks to the new IIoT platform, the Grenzebach Application Server, the stacking unit is integrated efficiently into the plant. The Application Server acting as a communication, data and analysis platform processes and evaluates all relevant data and makes the results available to other systems. This way, the Grenzebach Application Server allows for optimization of the production efficiency.

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### **Quantum leap in stacking technology**

Grenzebach offers this new piece of glass handling equipment to the glass industry world-wide. Grenzebach expert Gruber says: "For those who build a new glass production line, this high-efficiency stacking cell catapults them to the top level of Industry 4.0." For glass manufacturers stacking glass manually up until now, this High-Speed-Stacker represents a quantum jump with respect to automation and an increase in efficiency while saving cost at the same time. This High-Speed-Stacker is also a good opportunity to replace existing stackers, to increase optimization potential and to significantly reduce intelligent energy management of resource consumption.

### **A high performer for a range of products**

The three-axis glass stacker, an ideal innovation complete the Grenzebach portfolio, is especially appropriate for:

- » Stacking at float lines with small size and medium size formats in product mix
- » Stacking for cutting lines
- » Feeding and stacking of small and medium size formats in the high speed Tempering area (hardening of glass, safety glass production)
- » Feeding and stacking of small size and medium size formats in the Coating area (glass surface coating)

The TASS can handle the following glass formats:

- » Maximum sheet size: 1,982 mm x 1,220 mm / 78" x 48"
- » Minimum sheet size: 508 mm x 305 mm / 20" x 12"
- » Maximum glass thickness: 6.0 mm
- » Min. glass thickness: 2.0 mm

### **Collaboration with AGV**

Combined with the accumulator, conveyor line and Automated Guided Vehicles (AGV), the Tin-Air-Speed-Stacker shows numerous advantages. The device is optimized to place and energy requirements of modern production. Regarding the rack handling, the TASS is optimally conceived for collaboration with Automated Guided Vehicles, supplied by Grenzebach as well as for interaction with conventional shuttle and rotating platforms. Compared to its predecessor, the TASS High-Speed-Stacker due to its new functional principle and product supply concept exceeds the performance values and does so at low cost basis without additional industrial robot.

### **Improved technology**

For the development of the TASS High-Speed-Stacker, the automation experts at Grenzebach started out with the successful High-Speed-Stacker HSS. "We have further refined a solid technology and besides the double-arm kinematics added a lot of features, such as the fully integrated accumulator", says Markus Gruber. Grenzebach has more than 50 years of experience in glass production technology. More than 300 lines are currently in operation world-wide. With the TASS High-Speed-Stacker, Grenzebach completes the portfolio of direct drive stackers for smaller formats and lower product weights with high stacking capacity.

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*Source: Grenzbach*

Grenzbach is a world-wide leader specializing in the automation of industrial production lines. By providing services encompassing the entire life cycle of a project, Grenzbach's tailor-made automation solutions have a positive impact globally in glass and building material manufacturing as well as intralogistics. Many years of experience, continuous development, and sustainable support services are what makes Grenzbach one of the most preferred partners world-wide. 3000 installed lines in 55 countries prove that the Grenzbach name stands for quality and reliability. Amazingly, 90 percent of Grenzbach's products are for export which reflects that the medium sized family-owned company from Hamlar is a global player in the industrial automation.