

## Innovative hydro-pneumatic pallet stopper developed

Weforma Dämpfungstechnik (Damping Technology) GmbH presents innovation at the MOTEK

Stolberg (Rhineland). – **Weforma Dämpfungstechnik GmbH** from Stolberg, specialists for hydraulic industrial shock absorbers, presents their new **Pallet stopper** for the first time at the Weltmesse für Automation (Trade Fair for Automation), the **MOTEK 2009** in Stuttgart. From the 21st to 24th of September, the hydro-pneumatic separator for **pallet recirculation systems** was presented on Stand 5/5526 to interested parties from the assembly technology, industrial handling and mechatronic production automation industries.

During the assembly of industrial and household goods on pallet recirculation systems, the pallet stopper fulfills two functions: On the one hand, they provide smooth deceleration of one or more pallets that, during the production process, are stored at determined positions on the belt and release them individually for transportation to the next manufacturing position. There, the pallet stopper provides smooth deceleration to prevent damage to the manufactured parts through hard impact. Simultaneously, it ensures positional accuracy when reaching the end position, to guarantee correct mechanised assembly.



Traditional pallet stoppers are air-damped. The Weforma pallet stoppers **WPS 320** and **WPS 500** operate **hydro-pneumatically**: The damping is carried out completely hydraulically – only the lowering of the pallet stopper for the release of the pallet and resetting to the initial position are pneumatic. This combination implies significant advantages: “Because the damping is only pneumatic, the energy is simply stored, on the contrary, during hydraulic damping the stroke is completely transferred to heat. Therefore, the supporting forces are minimal; in comparison to the size of the pallet stopper, it has a very large range of performance”, explained Weforma’s Managing Director **Armin Schmidt**.

For example, with the WPS 500 at a speed of 40 m/min, masses of up to 300 kg can be decelerated, at a speed of 6 m/min even up to **1200 kg**.

Thus, in comparison to purely pneumatic solutions, substantially less different models are necessary to fulfill varying requirements within a pallet recirculation system. That reduces the design effort, procurement costs and the requirement for storage or spare parts.

Furthermore, the hydro-pneumatic Weforma pallet stoppers are adjustable through a scale of 0 to 8, thus, they have a greater ease of operation and ensure the greatest possible repeatability. A hardened stop is integrated for a long service life; for protection from the environmental influences, the aluminium housing is black anodized and the stop retainer nickel-plated.

As a special design, the pallet stoppers are also delivered for the clean room Cl. 5 (ISO), Cl. 100 (US), Cl. 3 (VDI).