

Hydraulic Heavy-Duty Dampers to Protect from Hard Impacts

Weforma Dämpfungstechnik GmbH offers individual solutions “Made in Germany”

Stolberg (Rhineland). – Whether in modern crane systems, automated high bay racking or in container-logistics, whether as a buffer for railways, cable-cars and swing bridges or for the deceleration of slabs and beams in steelworks: **heavy-duty dampers** have their application in many branches of industrial, in order to protect machines, plants and goods from hard impacts. In order to reliably absorb the large load forces, the requirements on the heavy-duty absorber are very high.

In this sector, Stolberger **Weforma Dämpfungstechnik GmbH** offers a comprehensive selection of powerful hydraulic heavy-duty dampers “Made in Germany” – for many sizes and speeds, series or special design.

There is a common factor for the complete applications: High masses must be effectively decelerated. Thus, the heavy-duty damper is used, e.g. in high rack systems at the ends of the gangways, as mechanical safety elements: They are so designed, that they can absorb the complete impact load of the stacker crane – with loaded

carriages. “Without heavy-duty dampers, the temporary storage of many products, from the ready-to-eat pizza to the Swedish furniture, is inconceivable”, says Managing Director **Armin Schmidt**. “Our heavy-duty dampers function for continuous operation and also for emergency stopping, if the speed is too high.”

Stacker cranes of up to 40000 kilograms can be effectively decelerated, for crane systems or bridges it can be several million kilograms. The hydraulic heavy-duty dampers from Weforma efficiently convert the resulting energy into heat, also for such large load forces and dampens the complete system under control, simultaneously minimizing the opposing forces as best as possible.

Individual design with short delivery times

“The individual design of the respective absorber for its purpose of application is an additional challenge”, Schmidt continues. “Our catalogue of products with more than 180 absorbers, with different strokes and energy consumption, are always suited to the customer’s projects.” Thus, e.g. the chain holes are individually configured, the absorption curves determined, as well as force, time and delay diagrams compiled, dependent on the respective technical data. Because of the local production, using the most modern CNC machines, flexible manufacturing is always possible at Weforma – and that with a very short delivery time of only two weeks.

Thereby, quality and capability do not suffer: The service life of the heavy-duty absorber is, dependent of the length of the stroke, up to one million strokes. This is ensured by, et al., hardened and hard-chrome plated piston rods. Furthermore, the galvanized surface of the housing features good corrosion resistance. For applications outside, such as e.g., for dockside cranes, the absorbers are supplied with nickel-plated and chrome-plated piston rods, as well as a special paint in accordance with DIN ISO 12944-C5L.

By using special seals, the absorbers are resistant to temperatures of between -40 °C and +100 °C.

