German engineering in practice: Neuero Industrietechnik GmbH and complex dry bulk projects

Floating Terminal on the Paraná River in Argentina, GSM + NEUERO Cooperation.

Neuero Industrietechnik GmbH designs and manufactures pneumatic ship unloaders and mechanical ship loaders for dry bulk materials. The equipment is used for handling grains, meals, fertilizers, alumina, and wood pellets in ports, terminals, and industrial plants worldwide.

The company's engineering focus is on reliable material flow, system integration, and long-term operability. Many projects require customized solutions due to site constraints, environmental regulations, or complex logistics. Several projects executed and operated in 2025 illustrate how this engineering approach is applied in practice.

Floating Terminal – Argentina – GSM + NEUERO Cooperation

One 2025 project addressed a logistics problem on the Paraná River in Argentina, where reduced river draft prevents Panamax vessels from being fully loaded at inland terminals. The solution was to load cargo at deeper water using a barge-based system.

GSM Argentina planned a solution and looked for a competent partner. GSM prepared as Grisel N Barge to serve as basis.

Neuero contributed a pneumatic ship unloader combined with a mechanical ship loader on a floating installation. The system unloads non-free-flowing material from barges, conveys it through a certified weighing system, and loads Panamax vessels offshore. The integration of unloading, weighing, vertical conveying, and ship loading into one travelling system required detailed coordination of mechanical design, movements, and process control

This project demonstrates engineering focused on system functionality rather than individual machines. The combination of unloader and loader in this configuration had not previously been implemented in this form. Also the international cooperation was demonstrated.

Neuero delivered two M300AL pneumatic ship unloaders to Rio Tinto's La Baie terminal in Québec, Canada.

Pneumatic continuous unloading – Rio Tinto La Baie, Canada

In Canada, Neuero delivered two M300AL pneumatic ship unloaders to Rio Tinto's La Baie terminal in Québec. The terminal handles approximately 800,000 tonnes of alumina per year and required equipment designed for continuous operation, low operating costs, and long service life

The unloaders were manufactured in Germany and shipped largely assembled to minimize on-site work and avoid interference with ongoing terminal operations. The machines include

integrated continuous weighing systems and were designed to meet both current operating requirements and future automation concepts

Operational feedback confirms stable discharge rates, high availability, and predictable maintenance behaviour, reflecting a lifecycle-oriented design approach rather than short-term performance optimization.

Mechanical ship loading with controlled dust emissions

Another recurring engineering requirement in 2025 projects has been dust control during ship loading. Neuero's mechanical ship loaders combine controlled material flow with automated hatch coverage using the KIKO® system and DLH® dustless loading head.

Rather than relying on external dust suppression alone, the engineering approach focuses on maintaining stable mass flow and minimizing drop heights. This has been applied in projects handling fertilizers, grains, and meals, including replacement of older jet-slinger-based systems that no longer meet environmental or operational requirements.

Neuero's mechanical ship loaders combine controlled material flow with automated hatch coverage using the KIKO® system and DLH® dustless loading head.

These projects show that dust control is primarily an engineering and process control task, not a cosmetic feature.

Engineering approach

Across pneumatic unloading and mechanical ship loading projects, Neuero's work is characterized by:

- Specialized and focused,
- Tradition combined with innovation, emphasis on reliability, efficiency and environmental friendly solutions.

2026 will not be different with big projects in Tilbury, UK with 1,000 tonnes per hour unloaders, repeated orders for urea loading in the middle east and biggest export terminal in Brazil.