



Stock preparation for cartonboard machine modernised with VEGABAR sensor technology

*The LEIPA GROUP is an independent family business – for over 170 years it has stood for environmentally friendly processes and technologies in the area of **paper and packaging** based on 100% recycling. The range of business activities in Schrobenhausen, where the company was founded, include the cartonboard and specialty paper segments as well as the LEIPA FlexPack business unit. The latter offers paper-based solutions in the area of flexible packaging.*

LEIPA multi-ply grey carton board is, so to speak, the "classic product" for secure protection of valuable products in boxes and packagings. But it is also a popular standard solution for pallet covers or hardbound books. The environmentally friendly material with grammages ranging from 300 to an impressive 950 g/m² is extremely resistant and stable and is used in a wide range of applications.



The cartonboard machine at the Schrobenhausen site was previously supplied by three separate stock preparation lines, one for each of the three layers: top, interlining and back. Because the proportion of foreign matter and dirt in the recycled paper used was continuously increasing, the costs of operating and servicing the threefold system technology were also increasing. For that reason, the company undertook a comprehensive modernisation project, combining the three stock preparation lines into one and making investments in new plant components and extensive automation technology. There were four main goals here: increase operational reliability, make production more cost-efficient through new technologies, reduce maintenance costs and improve deinking quality.



A high degree of automation is indispensable in a modern stock preparation system that requires availability around the clock, all year round. This is ensured by a modern control system and the right sensors. Because of the good experiences the company had already had with VEGA sensors, those responsible for planning and maintenance decided in favour of the **VEGABAR 82** pressure transmitter as the standard instrument for level and pressure measurement in the new stock preparation system. The simple on-site adjustment and the robustness of the instruments were also decisive factors.



Especially in recovered paper processing, the deployed measurement technology is subject to extreme mechanical stresses caused by abrasive residues in the suspension or the vibration of refiners or standpipes of MC pumps, as well as hydraulic shock resulting from quickly closing valves. Further challenges for every measuring system are: varying stock densities as well as agitators in vats and stock towers. The internal cleaning of equipment components with aggressive chemicals and external cleaning with high pressure cleaners are additional factors that have to be reckoned with. Sensors have to measure precisely and reliably in spite of these challenging conditions. VEGA understood the advantages of robust ceramic early on and came up with a sophisticated sensor design utilising the dry, capacitive measuring cell CERTEC®. High-purity alumina ceramic (99.9% Al₂O₃), which is second in hardness only to diamond, is used as the diaphragm material. This protects against abrasion, especially in cleaners, and ensures the long service life required for profitable continuous operation.

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