

*Touchscreen can withstand sand, dust and the elements*



Vandersanden is one of the larger brick manufacturers in Europe. With two branches in Belgium, two in The Netherlands and one in France, the family business produces 400 million high quality facing bricks and paving bricks a year. And sustainably too! Vandersanden contracted Mulder-Hardenberg to supply new outdoor touchscreen monitors, which are installed in various columns for several production locations. The touchscreen monitors are an essential part of an ingenious logistic system for the effective on-site organisation of raw materials supplies.

The system was developed by Vandersanden and focuses among other things on weighing the lorries before and after deliveries are made.

Steven Vandersanden, the company's ICT Infrastructure & Application Analyst, says: "Communication with the drivers supplying clay or sand is done using the touchscreen monitors in the columns. The fully automatic system gives us a complete overview of which loads will be delivered on which days. Suppliers' invoices are also processed more efficiently".

### The Challenge

The touchscreen monitors and the columns are located where the elements and the wind have free rein. Vanhoenshoven: "The old screens didn't work well after a while, because a lot of sand and dust crept in behind them. The PCs in the columns



Thanks to the logistic system, Vandersanden has a complete overview of the 30 to 80 loads, which are delivered daily!

*also regularly crashed. So new material had to be introduced that was more resistant to the outside environment. We chose Mulder-Hardenberg, because the company had previously supplied good touchscreen solutions for our factory."*

After visiting the site for a proper analysis under practical conditions, Sander Van den Bosch, among others an expert in the field of Human/Machine interfaces and Monitoring & Control at Mulder-Hardenberg, decided that only a customised long-term solution would provide problem-free operations. A switch from standard products to real customised work. A complex problem, but also an interesting challenge!

Vanhoenshoven says: "Sander came by and looked at the situation to see exactly which solution we needed. He immediately considered the influences of the weather and the lighting and this approach increased our confidence."

### The Solution

Customised touchscreen monitors have been implemented at the Vandersanden Lanklaar site, in combination with fanless box PCs.

Van den Bosch says: "With regard to the touchscreen monitors, we opted for monitors with a significant number of specific options in order to ensure that they would continue to function properly for a long time with dust and sand flying around and in rough weather conditions."

See next page



The monitors' configuration (IP67 on the front) consists of a 15" panel-mounted monitor not easily penetrated by dust and which is resistant to both very low and very high temperatures. Other options are a high brightness LED panel with a high light output of 1,500 nits and a projected capacitive touch sensor (PCAP) which reacts quickly and accurately to touching by hand.

The use of this type of sensor makes the end product more resistant to water and so extremely suitable for tough industrial environments.

The monitors also have a light sensor on the outside of the column. These sensors dim the high brightness panel, so that the monitors continue to be easily legible in all conditions. From dusk to sunlight. Very pleasant for the lorry drivers!

The fanless box PCs supplied are configured with no moving parts - so that dust or sand cannot become lodged in them. An embedded OS has been opted for because this type of operating system takes up less room and is more efficient and above all is more reliable.

**The Implementation**

Vandersanden installed everything themselves. *"We are sure that we have used the most suitable materials"* says Vanhoenshoven. *"And if we have any questions, we can contact Mulder-Hardenberg. Sander always tries to plan things so that he can come and visit us in order to answer any questions as thoroughly as possible. He has a lot of technical know-how and an eye for detail. It is quite reassuring to have someone like that at your desk."*

**The result**

Vandersanden now has a reliable customised solution, which provides operational dependability. Moreover, all components will still be able to be ordered in the long term. So the entire system will continue to operate for a long period. This provides numerous advantages for the company, such as full control of the stocks, minimisation of costs and more operational efficiency.

Vanhoenshoven concludes: *"We are extremely satisfied, especially with Mulder-Hardenberg's service. They are keen to contribute ideas for realising the best solution. We will certainly employ the company for other projects!"*

*The touchscreen monitors are now dust and weatherproof.*



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