



*Various monitors,
challenging requirements*



Boskalis is a leading international service provider in the field of dredging, maritime infrastructure and maritime services.

The E&I Services department provides electronic equipment for projects and for the activities on board ships.

Boskalis was looking for a partner that could assist in specifying and supervising the design and for checking manufactured monitors against the required specifications.

Mulder-Hardenberg was selected for the company's problem-solving skills, materials knowledge and experience with solutions for maritime applications.

The challenge

The 15" and 17" monitors are used mainly on the bridge and in small and large cranes. The monitors have to be mounted in panels or on mounting brackets.

Boskalis has specific requirements for the various monitors in use. A rugged product is required due to the vibrations and shocks. The display, with its wide viewing angles, has to provide continued trouble-free operation. High brightness



output is required, as the work often involves direct sunlight in glass cabins.

However, it proves to be difficult to find panels with a wide viewing angle that satisfy the specified shock requirements. Extreme dimming is also required for the dark, night conditions. Finally, the solution has to be completely compatible with the systems in the field, and for this reason, a specific touch interface is required.

The solution

Mulder-Hardenberg has found a solution for every requirement. As a starting point, the 19" size is selected in preference to 17". After all, the demand for larger diagonals will only increase. A 15" TFT panel is also required for the cranes. Mulder-Hardenberg selected suitable TFT panels that would be resistant to shocks and vibrations. Optical bonding was used to make the whole assembly even more robust. Using an encoder knob created the possibility of dimming the light

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intensity to an absolute minimum while retaining the maximum number of control steps. Pressing the knob switches the monitor off. Finally, a touchscreen with minimal reflection was integrated, as well as a controller that is suitable for all Boskalis systems.

The implementation

Mulder-Hardenberg supplies the requested monitors and makes sure that the set requirements and specifications are met. Trust and ease of use are some of the ingredients in frequently recurring assignments.

'It is a challenge that the equipment will need to be used on all distant work locations and under all sorts of conditions, while continuing to provide stable operation', says Peter Oorschot of Boskalis E&I Services. 'Collaborating with Mulder-Hardenberg, as the link in the chain between the manufacturer and ourselves, has created a preferred route where Boskalis can focus on the most important operational tasks and whereby Mulder-Hardenberg maintains contacts with the manufacturer because they speak the same language. The years of experience mean that Boskalis can rely completely on the professionalism of Mulder-Hardenberg', according to Peter Oorschot.

The result

All Boskalis requirements have been met. The user can utilize the monitors safely under all conditions. The construction prevents moisture and dirt from reaching the electronics, so the operation is not affected by such external, and sometimes extreme, factors. Boskalis has achieved positive results, using several monitors with various applications.

The application's success has several implications. The monitors' manufacturer is also more than satisfied with the input, feedback and additional specifications that have been jointly compiled. This enriches the product specifications.



Our Websites



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