

3D-Measurement of steel surfaces on board

For Teakdecks

Wolz Nautic OHG

Technical Order Specification

1. Teak Decking

In accordance to Annex „Accommodation Demarcation Plan“, decks are to be clad with teak and are to be levelled to provide an even surface to lay the teak properly.

Normal procedure to day



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.... with well known result



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Aims

The aims through 3 D measurement are:

- minimal usage of leveling compound
- reduction and optimization of the fairing and process times
- fast and accurate informations concerning form, weight and gravity
- an assured water drain
- an optical attractive deck without differnces in the height
- no claims and no re-working

Contour and surface analysis with the 3 D Laser Tracker (on board)



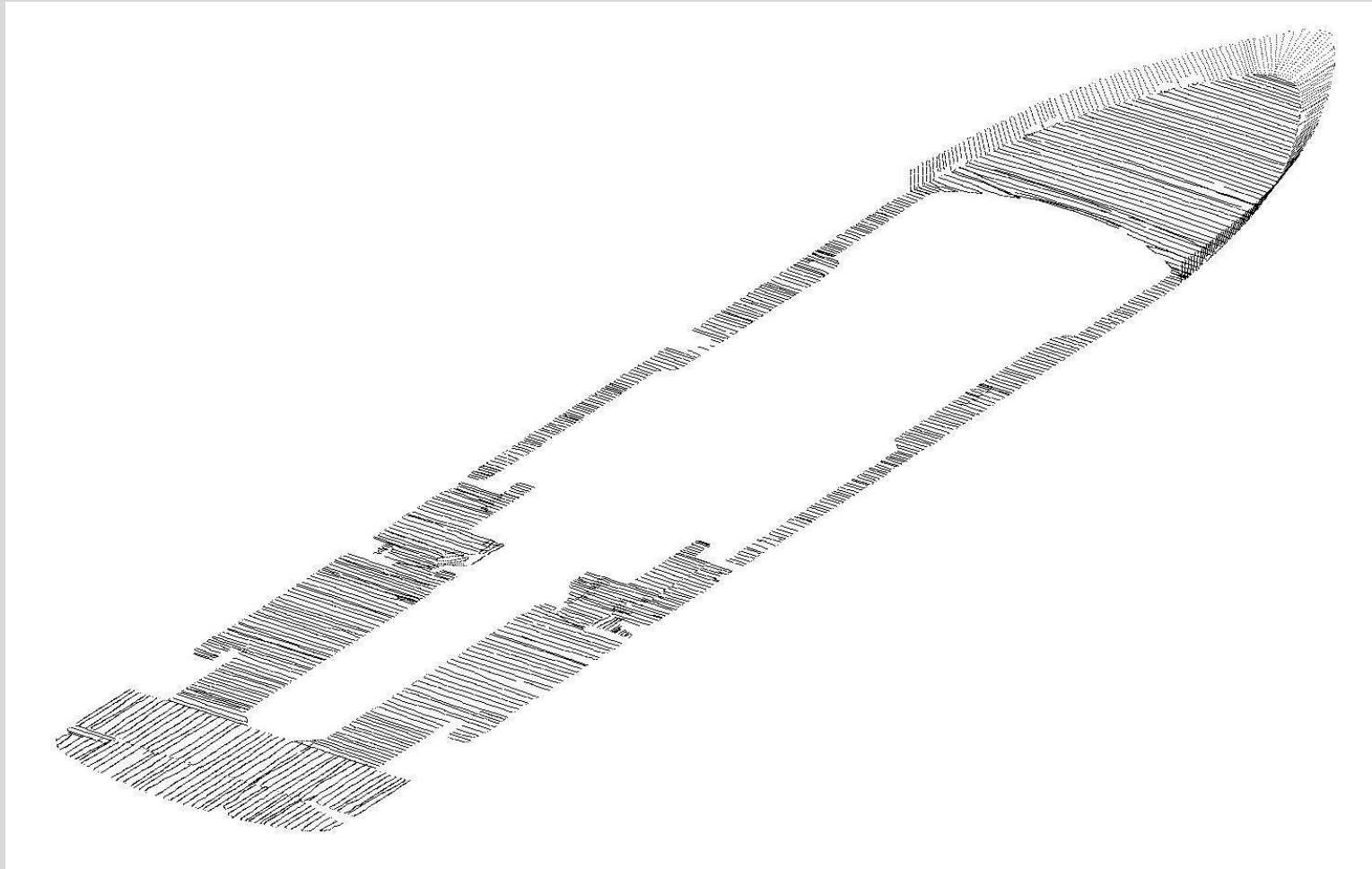
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Contour and surface analysis with the 3 D Laser Tracker (on a template)



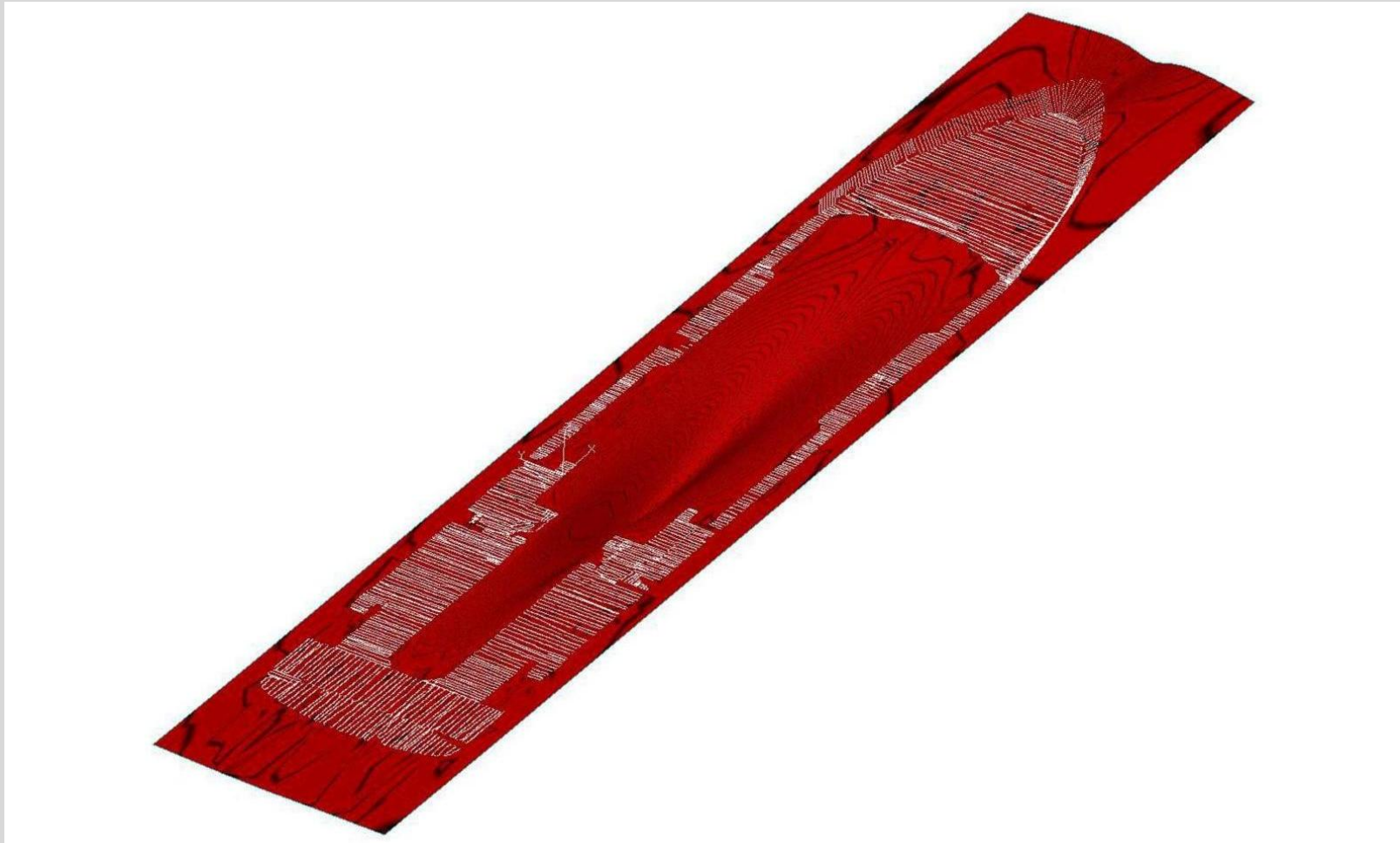
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The spot cloud is the result of the 3 D contour and surface analyze procedure



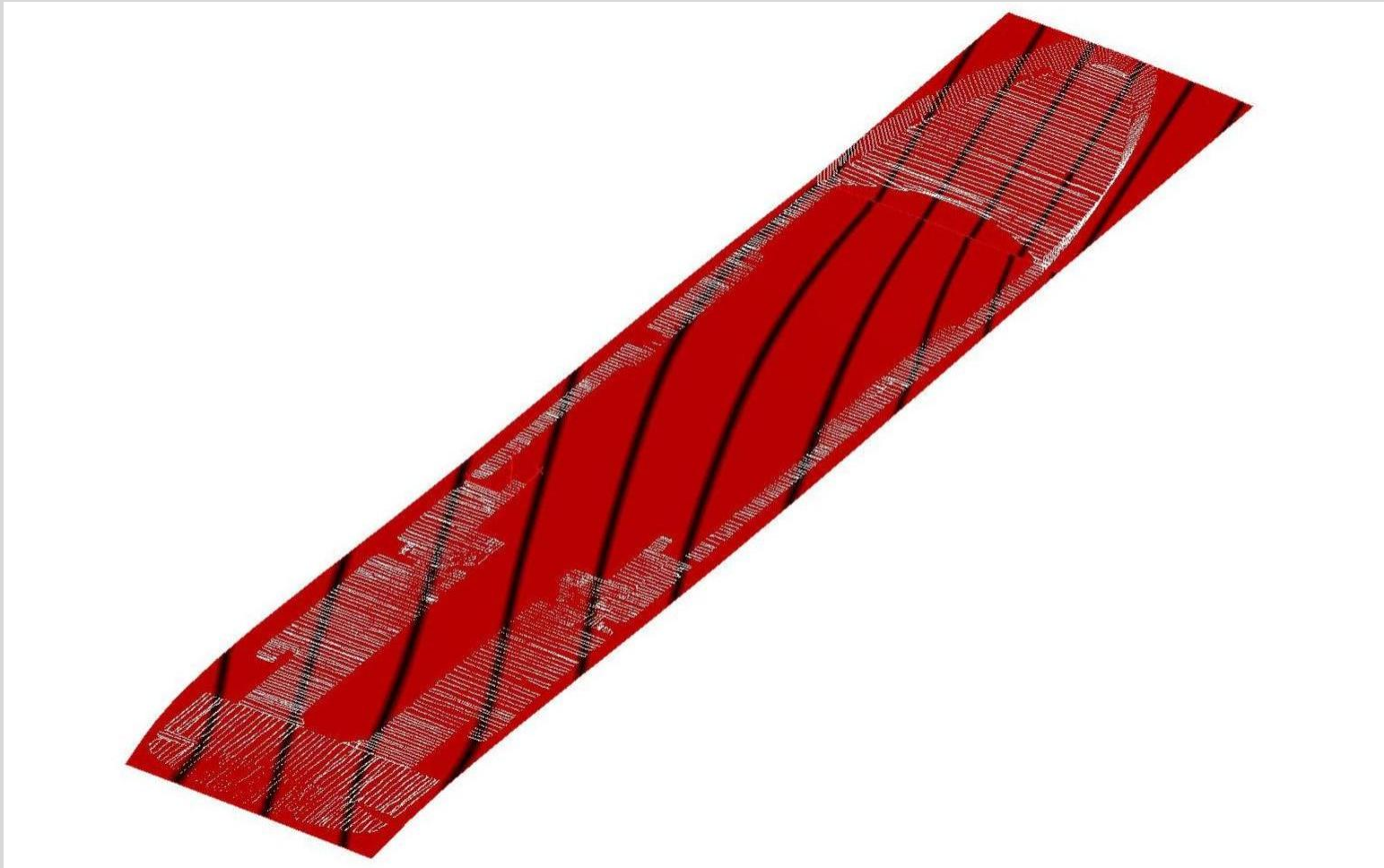
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Surface-analysis of the measured contour and surface



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Constructed ideal deck-surface



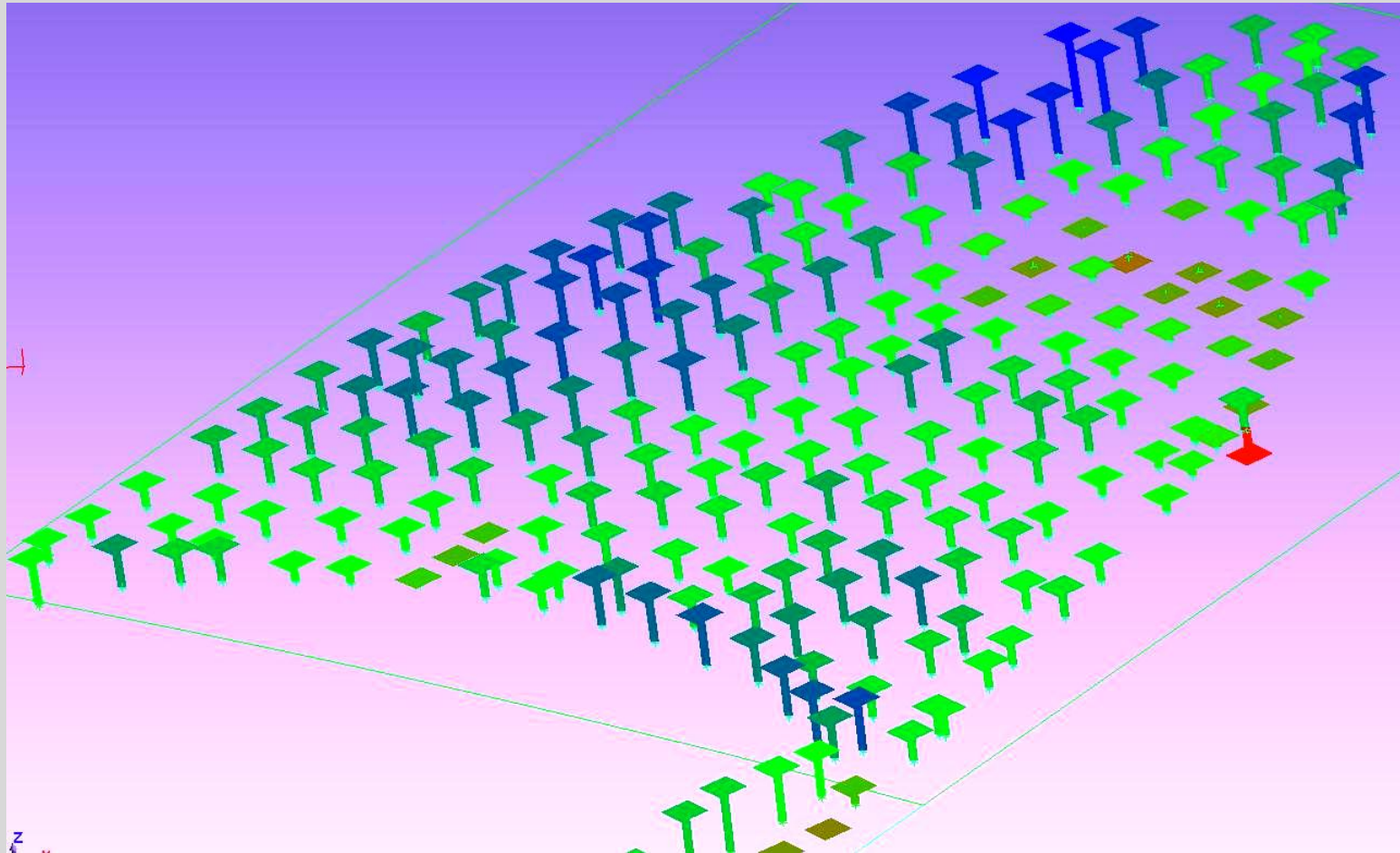
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Execution on board

The application of the created datas can be done in two ways:

- Fairing through leveling compound
- Fairing through cork panel

Fairing through leveling compound

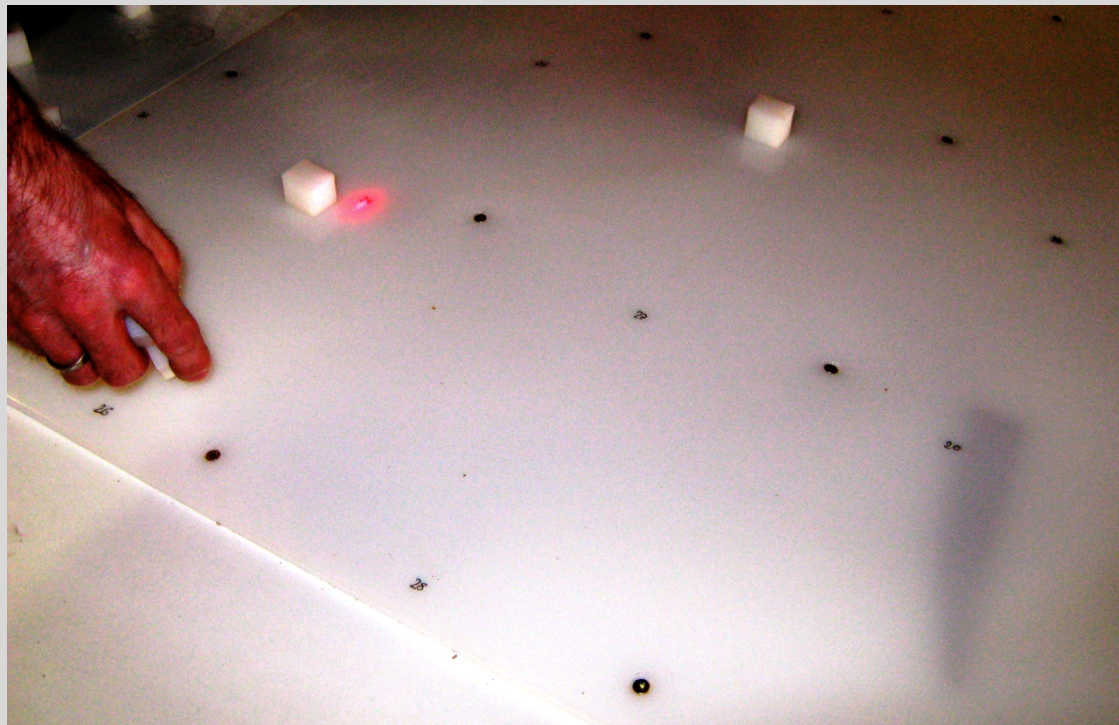


Graphical analyze of the existing <=> ideal deck

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Creation of the results on board

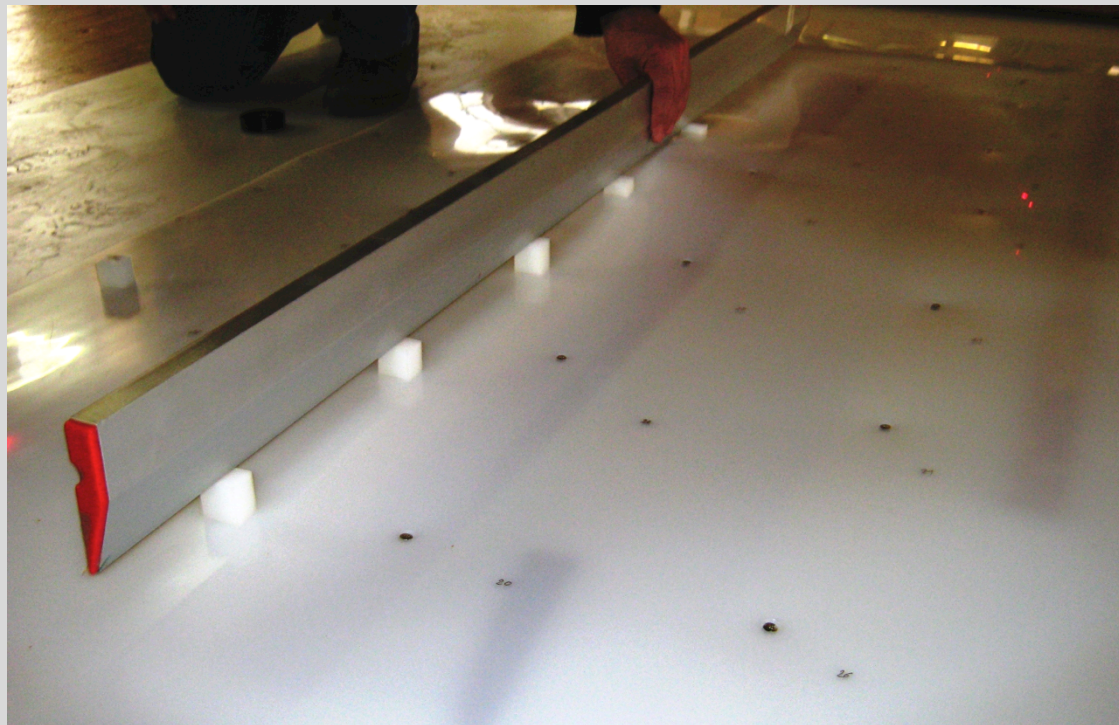
- tagging of the spot through laser tracker
- simultaneously suggestion of the differences on the laptop



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Result

- even surface on top of the distance-holders
- stripping of the fairing compound above the distance-holders



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Fairing through cork panel

Advantages:

- weight reduction (density compound ca. 0,8 <> cork 0,35)
- faster process times on board

3 D milled cork



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Control procedure



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Efficiency

Direct savings:

- Measurement around. 45 – 65,- Euro/m² <> 1mm/m² fairing 16,- Euro/m²

Indirect savings:

- minimal usage of leveling compound
- reduction and optimization of the fairing and process times
- fast and accurate informations concerning form, weight and gravity
- an assured water drain



The
End

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