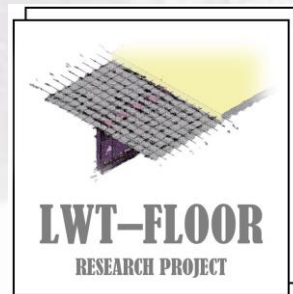
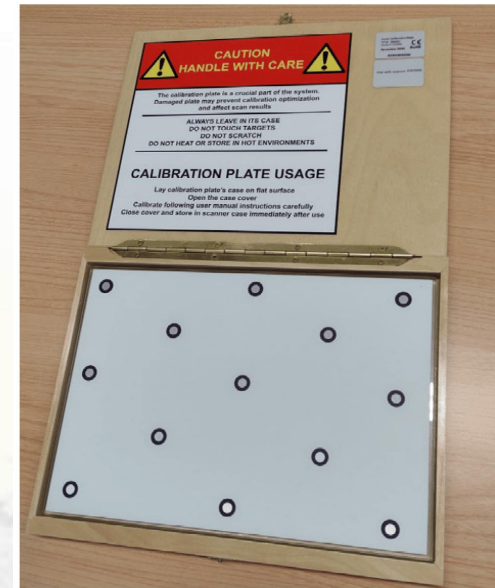


3D scanning and preparation of the steel and composite girders for measurement with the GOM ARAMIS

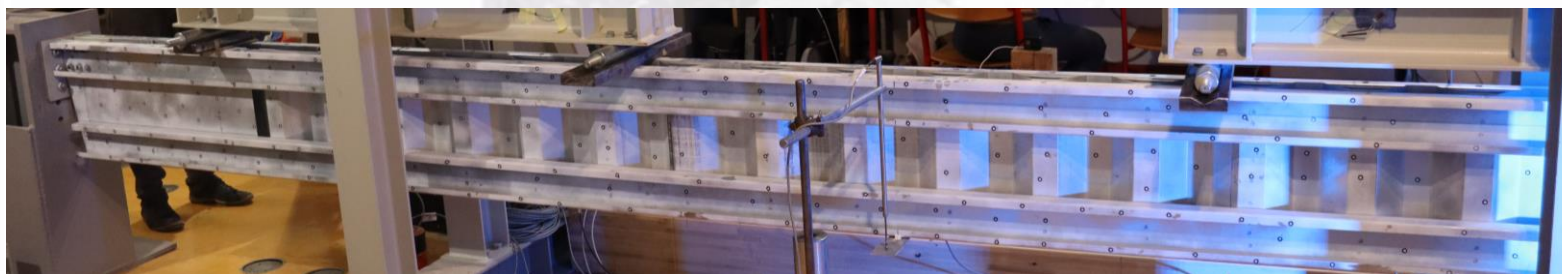
**A. Rajić, V. Žuvelek, I. Lukačević, I. Ćurković,
J. Koščak, M. Bartolac**



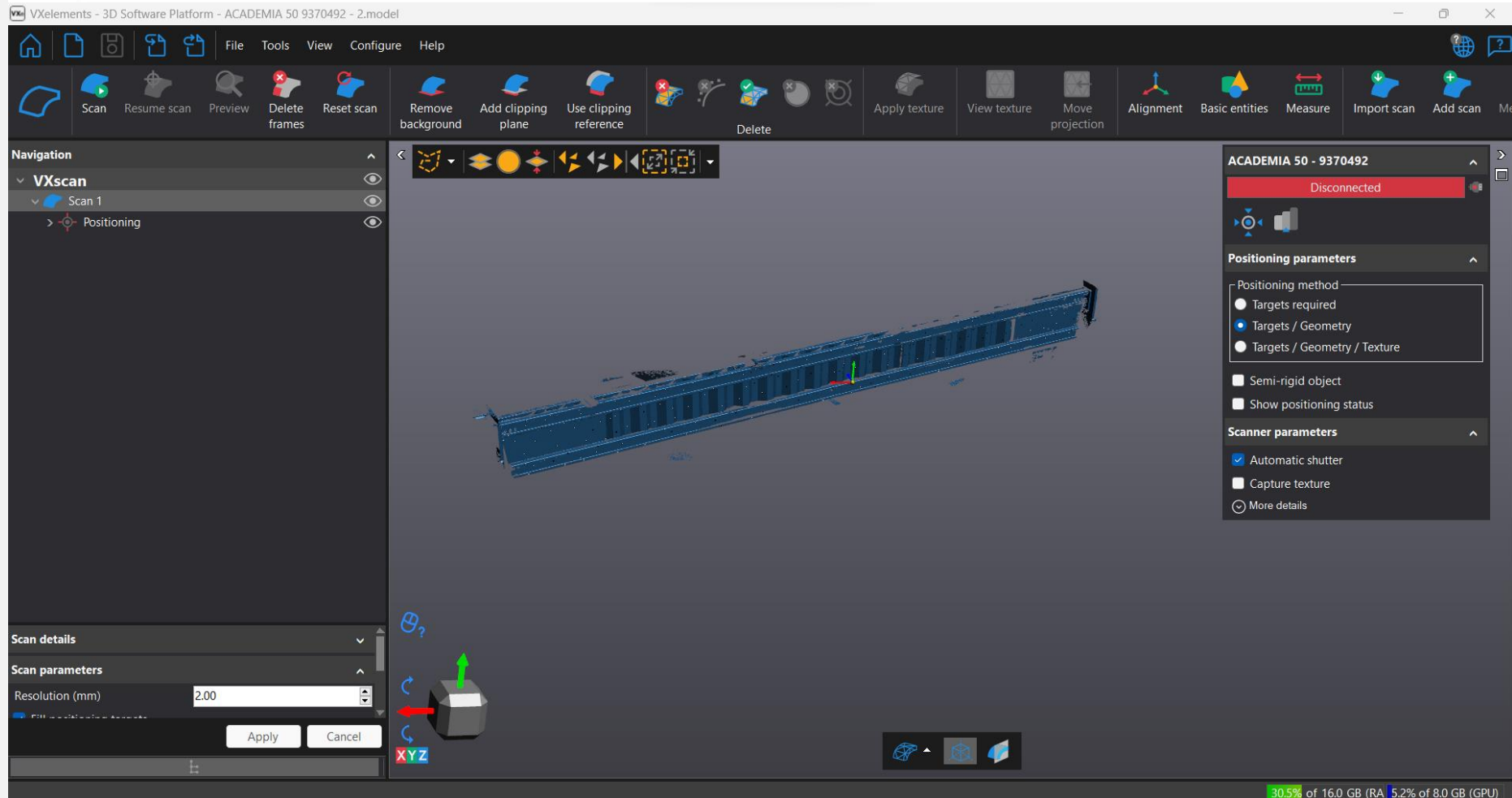
3D scanning



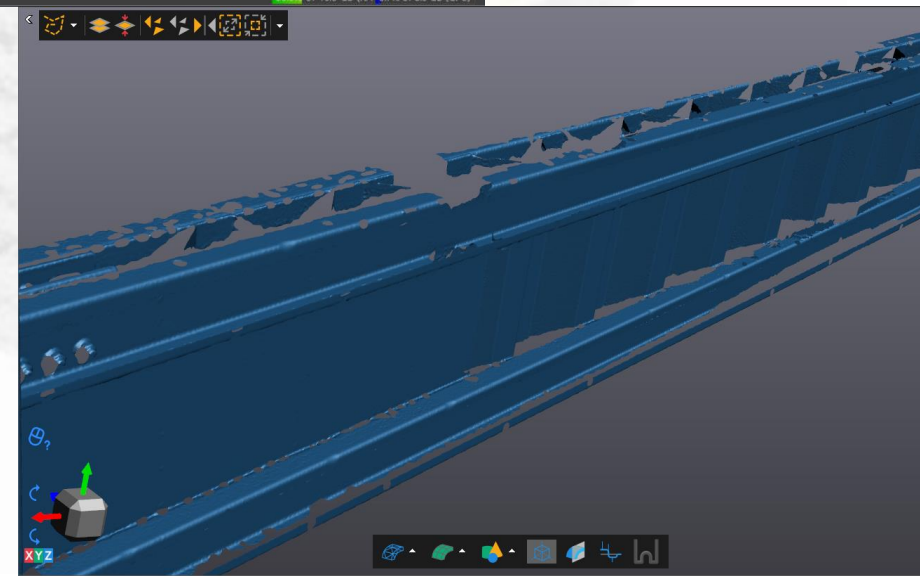
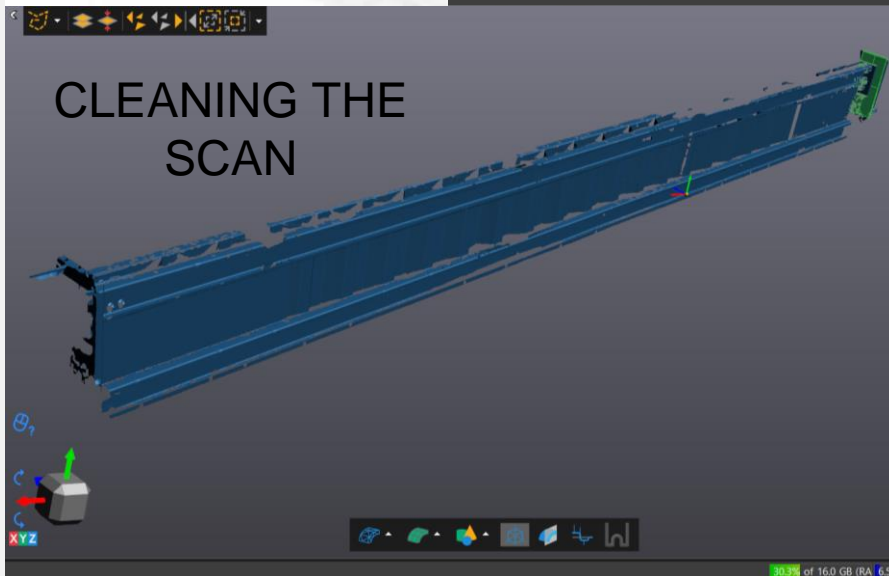
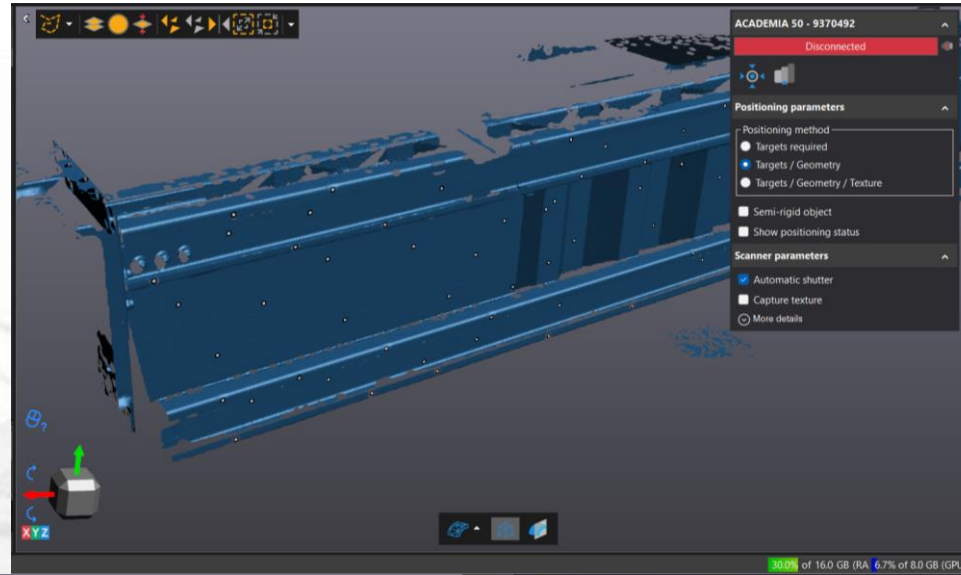
3D scanning



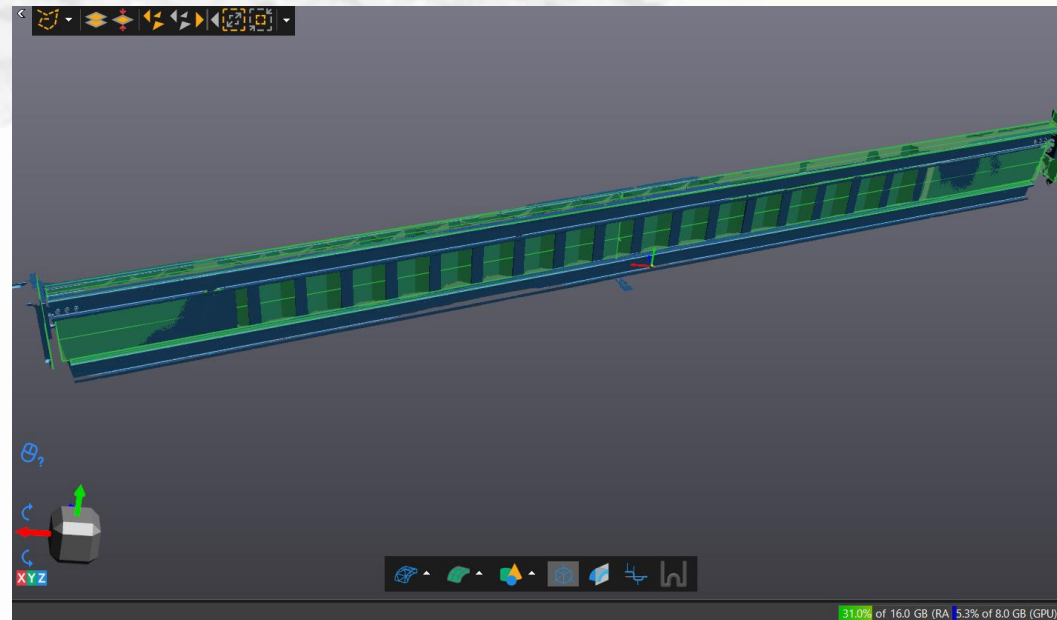
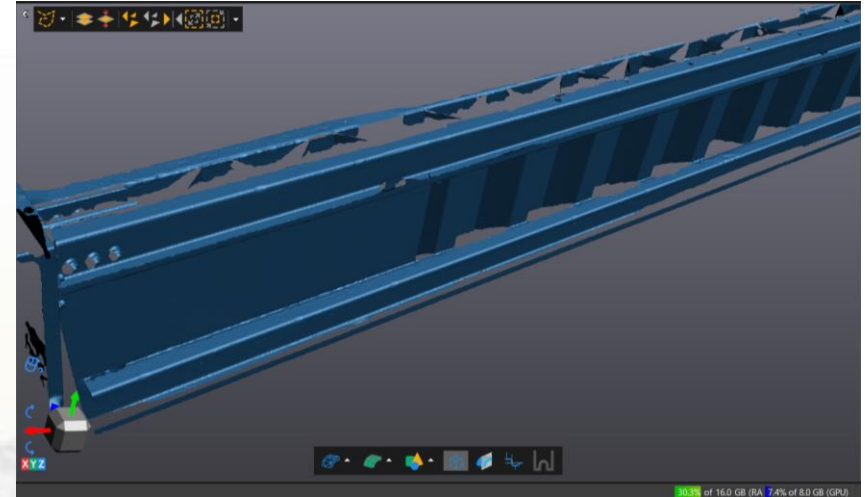
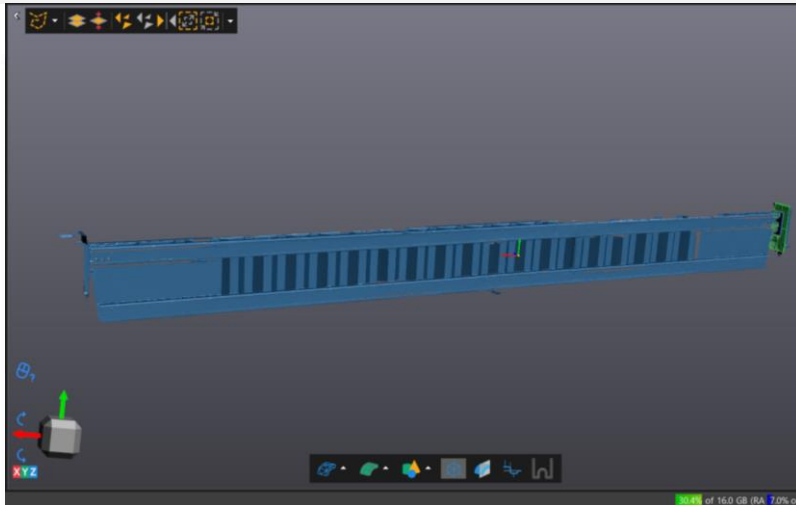
3D scanning



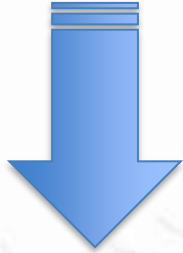
3D scanning



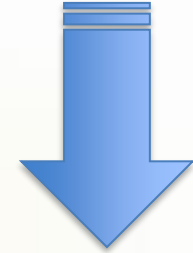
3D scanning



TWO METHODS



hand painted speckle pattern



spray painted speckle pattern

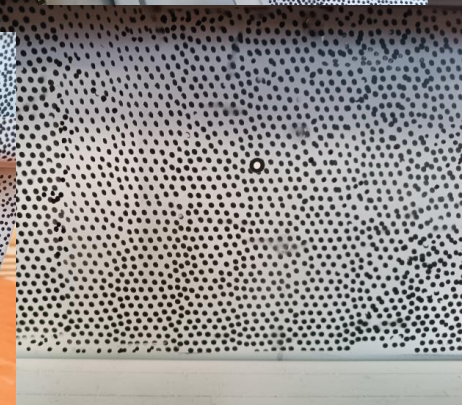
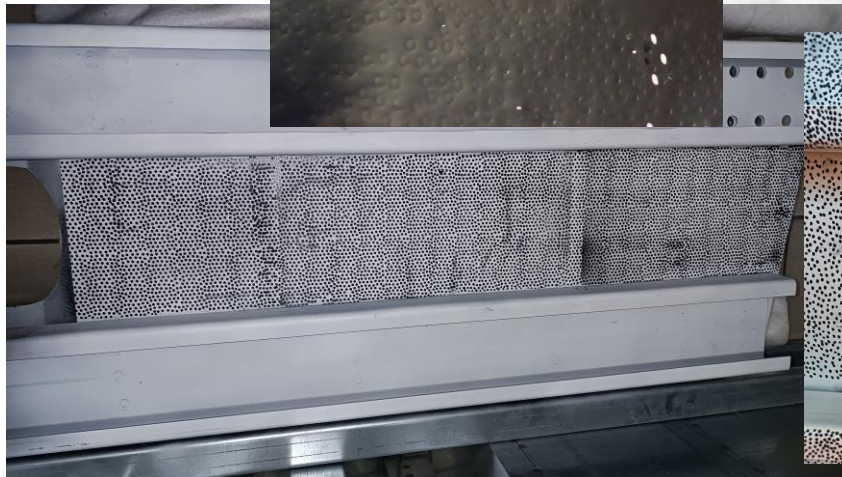
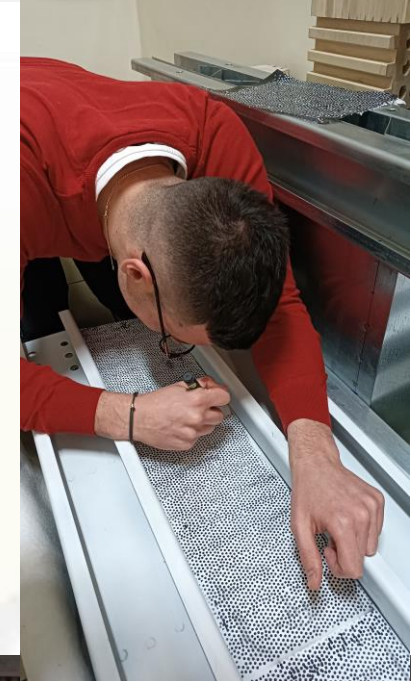
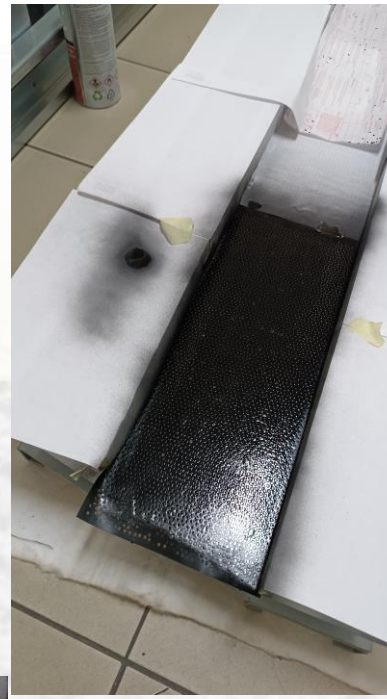
GOM ARAMIS



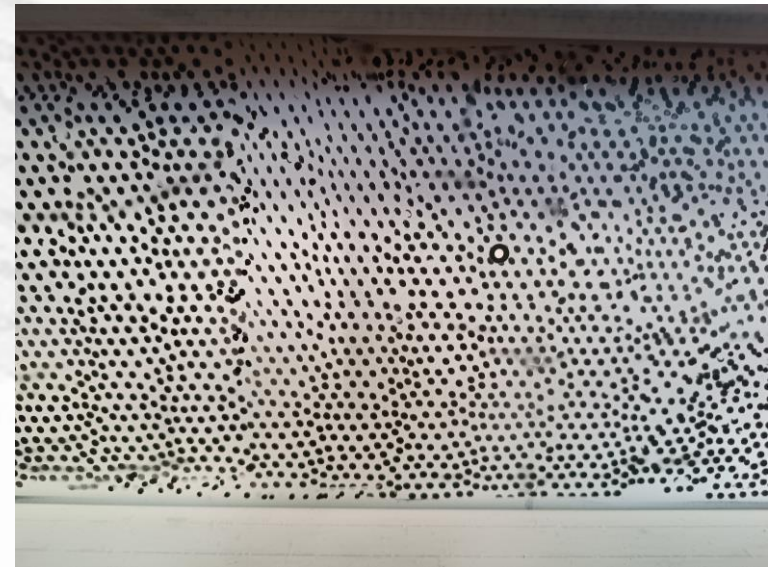
GOM ARAMIS



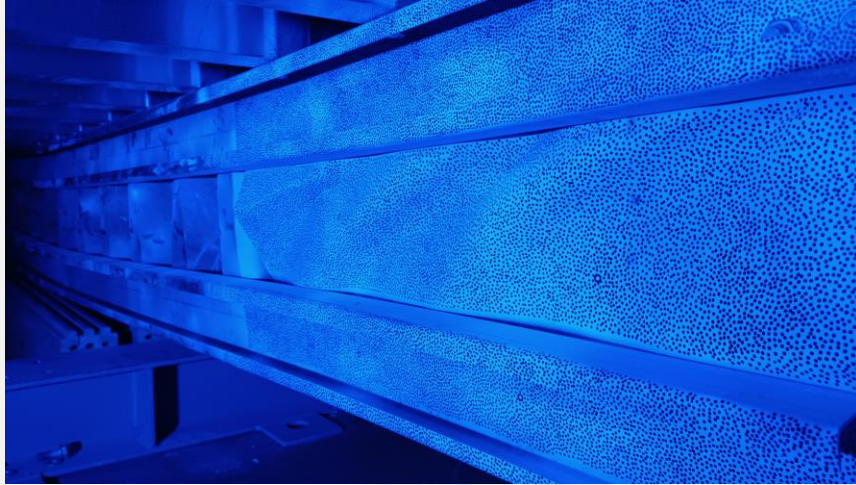
GOM ARAMIS



Comparison of two methods



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resolution = 4096 x 3000 px

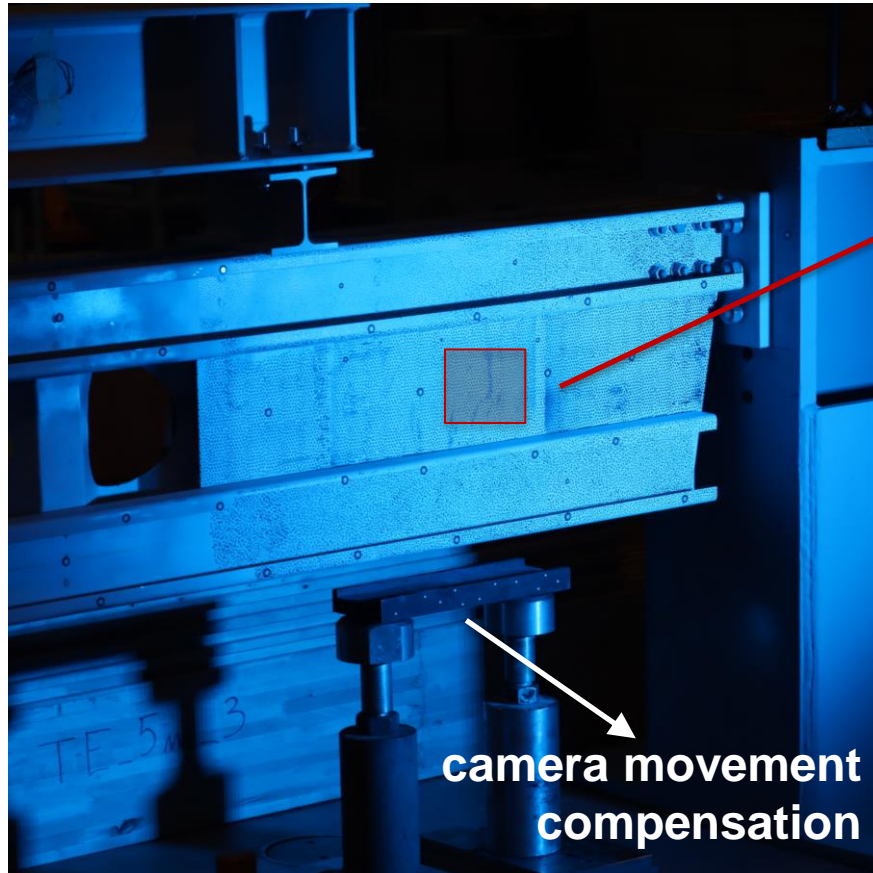
max. frame rate = 25 Hz

focal length = 24 mm

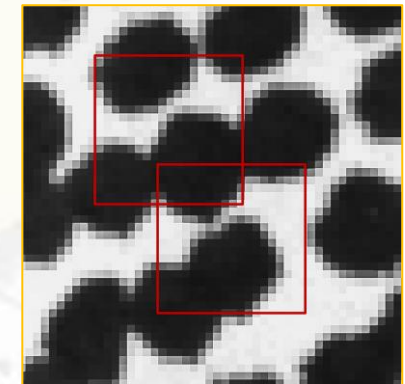
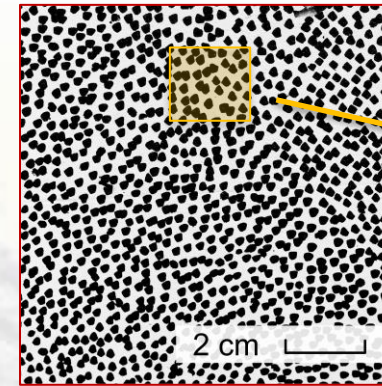


Stereophotogrammetric measurements

GOM Aramis Professional 2019



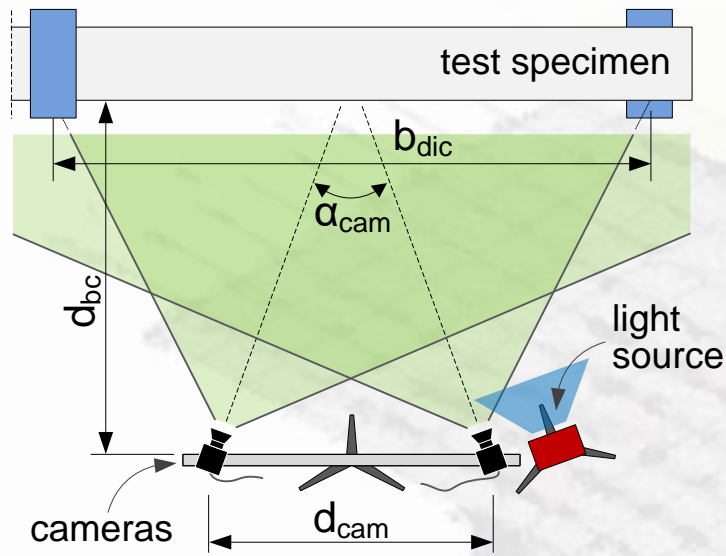
hand painted speckle pattern



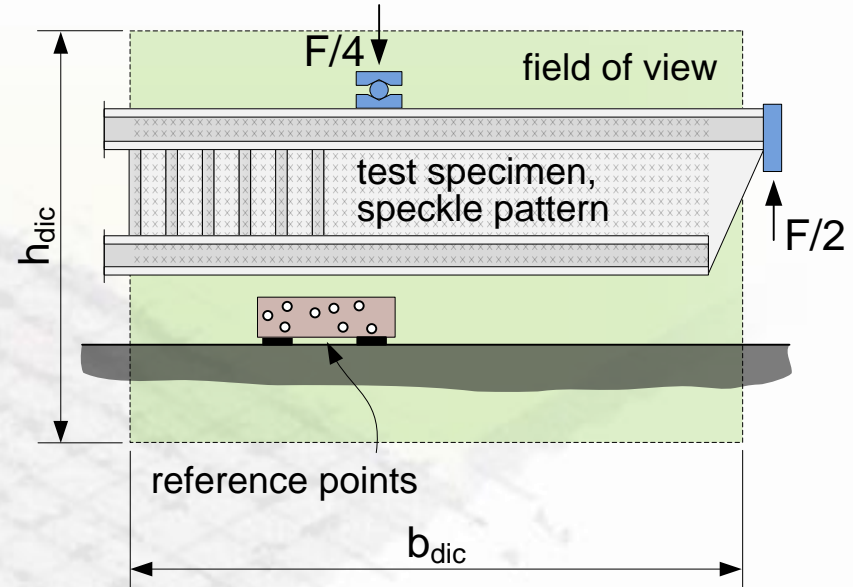
Stereophotogrammetric measurements

GOM Aramis Professional 2019

Top view



Front view



arrangement of the cameras:

$$d_{bc} = 1640 \text{ mm}$$

$$d_{cam} = 688 \text{ mm}$$

$$\alpha_{cam} = 25^\circ$$

field of view:

$$b_{dic} = 925 \text{ mm}$$

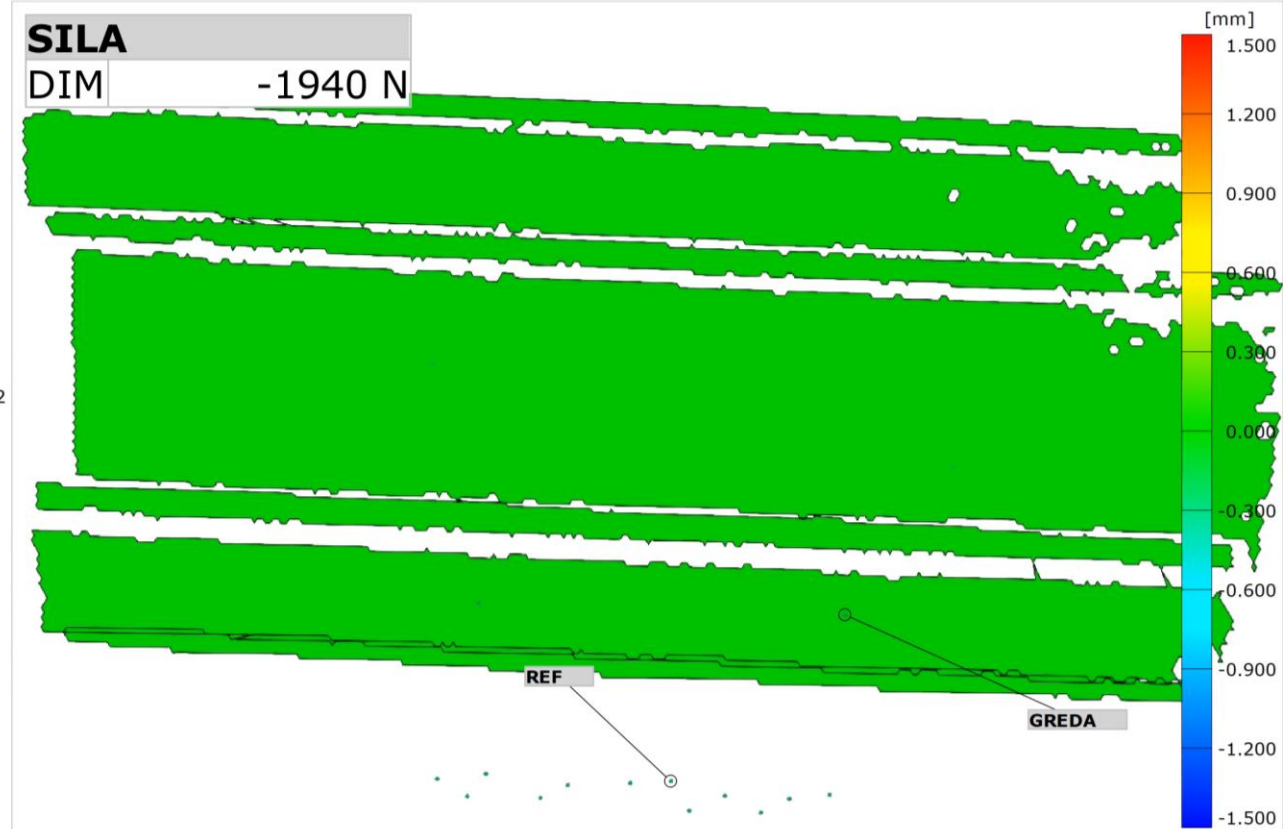
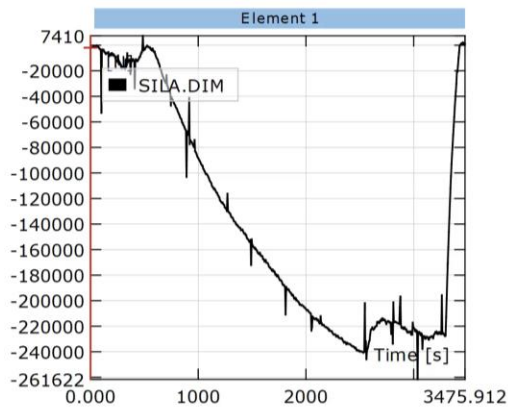
$$h_{dic} = 705 \text{ mm}$$

acquisition rate:

$$0,2 \text{ Hz}$$

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Out of plane displacement



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