



Standard Operating Procedure

Alicona Infinite Focus (GT5)

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School:	Engineering	Campus:	Waurm Ponds	Location:	KE2.101
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Category Rating:	Specific training required				

SCOPE & PURPOSE:

The purpose of this SOP is to proficient users and staffs how to operate the Alicona GT5 safely to obtain 3D topographical data.

TRAINING REQUIREMENTS:

User will have completed Level 1 online and Level 2 materials labs inductions, and need to be trained by technical staff in a level 3 induction. Before using this equipment, required safety documentations must be completed and signed off by the technical staff and the user's supervisor.

POTENTIAL HAZARDS/HEALTH EFFECTS:



Mechanical entanglement in the stage.

Crushing by being trapped between the plant and materials or fixed structures.

Ergonomic due to other factors – long periods of sitting.

MANDATORY CONTROLS:

- ✓ Safety glasses
- ✓ Safety stop button
- ✓ Received training
- ✓ Use supports to position workpieces
- ✓ Project Safety Assessment

Precaution Requirements:

DO NOT USE AFTERHOURS (OUTSIDE OF MON – FRI 8AM – 6PM) WITHOUT TECHNICIAN AUTHORISATION.

- Be mindful - there are no collision sensors/detectors installed on the equipment.
- **DO NOT** change the location or names of any files/projects/folders once created.
- **DO NOT** change the objective with the sample underneath unless all the lenses are well clear of the top of sample.
- **DO NOT** tilt the stage with the sample underneath unless all the lenses are well clear of the top of sample.
- **DO NOT** run a 3D scan at zero tilt angle unless your sample is longer than 30 mm and there is sufficient clearance between the lense and tilted stage.
- **Remove** the secondary stage (unscrew it first) in case the tilt/rotation stage is aimed to be engaged for any measurement.
- **Keep clear** of the moving part of the equipment during operation.

INSTRUCTIONS:

Booking Procedure: must have a booking in the Outlook Calendar *G SEBE ENG Lab Eqpmt KE2.101 Alicona GT5(even if free and available).

Pre-Start check:

- Ensure the head is in its uppermost position.
- Ensure the stage is in neutral position. The tilt/rotation stage must stay at 90 degree tilt agle.
- Ensure there is no items on the stage including the secondary stage.

Operation:

- Open IF-MeasureSuite 5.3 software.



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- Follow the messages carefully before any action.
- If the stages need self-lubrication, inform the technical staff to do so.
- Select your database.
- Select the required objective by carefully rotating the lens head without touching the lenses.
- Position the sample. Mount the secondary stage if you are looking at flat samples and ensure it is fully secured to the main stage.
- If using the Real 3D scan option, remove the secondary stage before mounting the sample on the self-centering chuck.
- Using the joystick controller focus on the image in the imagefield - pull up/push down for z (focusing) movement.
- Use numbers 1-4 on the joystick for different movement speed options with 4 being the fastest.
- Using the joystick controller set up the imagefield;
 - right/left for x movement,
 - up/down for y movement,
- Adjust the brightness and contrast of the image.
- Adjust vertical and lateral resolution to your requirements.
- Set up your image dimensions.
- Save object as after scan finishes.

GENERAL CARE & MAINTENANCE:

- Move the head to its uppermost position.
- Move the stage to its neutral position.
- Remove all sample holders and return to cupboard.
- Make sure you collect all your samples and belongings and the working area is clean and tidy before you leave.

REPAIRS & CERTIFICATION/VALIDATION SCHEDULE:

Reporting faults/concerns of equipment procedure: Technical staff.
Supplier calibration is conducted annually.

SPILLS/ ACCIDENT REPORTING PROCEDURE:

Report incidents to: Technical staff.

In case of Emergency:

- Use safety stop button.
- Contact Technical Staff
- If a serious injury has occurred call 000.
- Alert others if nearby.
- Evacuate to closest assembly area.