



AF1300L2 SWEPT WING

AF1300L2

A swept wing specimen for the Subsonic Wind Tunnel (AF1300/AF1300s) specially designed to demonstrate the capabilities of Digital Image Correlation (DIC) in aerospace structural analysis and material testing.

KEY FEATURES

- The AF1300L2 wind tunnel specimen works as a standalone specimen but can be enhanced with TecQuipment's DefleX®-3D DIC system.
- Deflection of cantilever specimens with increasing wind speed.
- 3D-printed wing design based on realistic airliner wing with a robust mounting shaft.
- The aerofoils' surface is designed for easy respeckling to match your DIC requirements.

DESCRIPTION

The swept wing model (AF1300L2) offers a typical commercial swept wing complete with winglet for study on the Subsonic Wind Tunnel (AF1300/AF1300s)

The model is specifically designed for use with TecQuipment's DefleX®-3D to allow the study of the impact of the aerodynamic forces on the wing model. Coupled with the Three-Component Balance (AF1300t), a comprehensive set of experiments can be explored.

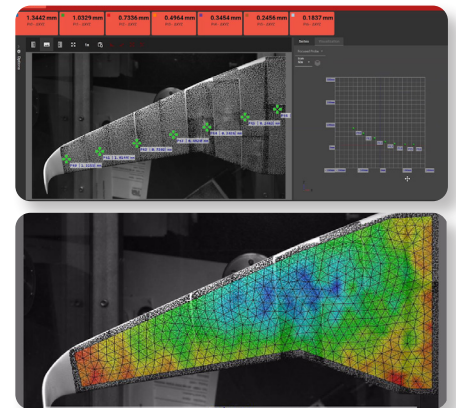
Students can investigate how changes in wind speed and angle of attack can affect the deflection of a cantilever.

LEARNING OUTCOMES

- Lift and drag performance with varying angle of attack
- Lift and drag performance with varying wind velocity

When used with DefleX®-3D and DefleX® Camera Mount (AF1300DCS):

- Understand how aircraft wings deform in flight
- Analyse and measure strain distribution across wing surface
- Measuring effect of changing speed and angle of attack on the deflection and applied load



*IMAGES TAKEN USING THE DEFLEX® SOFTWARE

STANDARD FEATURES

- Five-year warranty
- Made in accordance with the latest European Union directives
- ISO9001 certified manufacturer

WHAT IS INCLUDED

- Swept wing specimen based on a commercial airliner x 1

ESSENTIAL BASE UNIT

- Subsonic Wind Tunnel (AF1300/AF1300S)

OPTIONAL MODULES

- DefleX® Camera Mount (AF1300DCS)
- DefleX®-3D
- Three-Component Balance (AF1300t)





AFI300L2 SWEPT WING

AFI300L2

SPECIFICATIONS

TecQuipment is committed to a programme of continuous improvement; hence we reserve the right to alter the design and product specification without prior notice.

NET DIMENSIONS:

Length 280 mm, width 135 mm, depth 20 mm, weight 440 g

OPERATING CONDITIONS

OPERATING ENVIRONMENT:

Laboratory

STORAGE TEMPERATURE RANGE:

+5°C to +55°C (when packed for transport)

OPERATING TEMPERATURE RANGE:

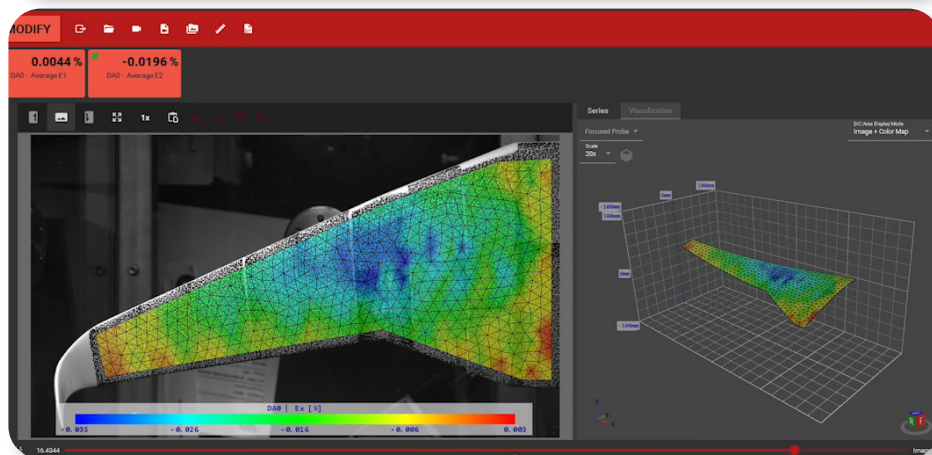
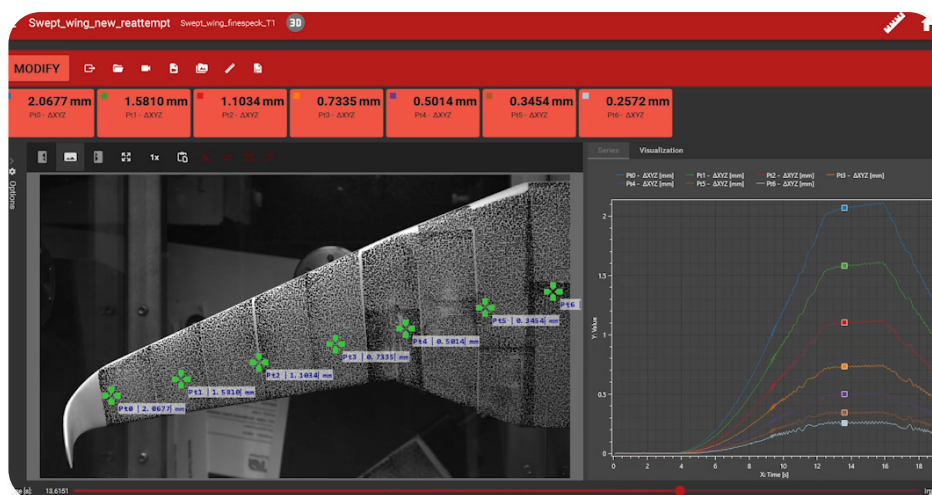
+5°C to +40°C

OPERATING RELATIVE HUMIDITY RANGE:

80% at temperatures < 31°C decreasing linearly to 50% at 40°C

SOUND LEVEL:

<70 dB(A)



*Images taken with the DefleX® software. The wing was placed inside the Subsonic Wind Tunnel (AF1300) mounted via the Three-Component Balance (AF1300t) and to capture the images DefleX®-3D and the DefleX® Camera Mount (AF1300DSC) was used making the deflection on the wing visible.

