TESEO Servo Actuator Test Bench (SATB) is the standard test bench platform which serves R&D and product end of line test of:

- Linear servo-actuators for aircraft FLAPS
- Rotary servo-actuators for aircraft
  - Leading Edge Flap Actuation System (LEFAS)
  - Trailing Edge Flap Actuation System (TEFAS)
- Linear Main and Tail Rotors servo-actuators

LEAN MANUFACTURING IN AEROSPACE AND DEFENSE

TESEO has been retained as supplier of choice for the programs:

Fix Wing: CESSNA, M346, Eurofigther

Rotary Wing: Light Utility Helicopter (LUH) and Advanced Light Helicopter (ALH)
## TECHNICAL DATA

<table>
<thead>
<tr>
<th>TYPE OF FEATURES</th>
<th>HELICOPTER ACTUATORS</th>
<th>AIRCRAFT ACTUATORS</th>
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<tbody>
<tr>
<td></td>
<td>Serves already over 5 linear</td>
<td>Serves already over 19 linear and 4 rotary</td>
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</tbody>
</table>

### Physical Data
- **Size**: 3100x1400x1700 mm
- **Weight**: 1200 Kg
- **Power**: 380VAC-32A

### Technical features
- Linear input axe with position control according to selected wave profile (sinus, triangle, trapezium, square) and with frequency up to 15Hz.
- Reaction load control with PID up to 30KN.
- Hydraulic control with PID up to 300 Bars.

### Aquisition System

#### Functional test
- **National Instruments Real-Time**
  - **Common Features**
    - Stall Load & Synchronization
    - Linearity
    - Hysteresis
    - Frequency Response
    - Threshold Verification
    - Internal Leakage

### Options
- Servo-Actuators fixture
- Custom test

### Twin test station
- Servo-Actuators fixture
- Custom test

### Key Figures
- Lean Manufacturing embedded design
- Real-Time for deterministic control
- Real-Time Ethercat for I/O management, Sensors and Actuations, with rugged synchronization (jitter lower than microsecond)
- Maximum accuracy in displacement measurement of 0,005mm.
- Maximum accuracy in load and torque measurement: up to 0,005Nm in Torque and up to 0,05% FS in Load.
- Calibration procedure embedded
- Automated detection of Servo-Actuator type
- User friendly Human Machine Interface that requires limited training for use and maintenance
- Linear maximum speed 160mm/sec on Input axe
- Linear maximum speed 30 mm/sec on reaction axe
- Rotary axe maximum speed 5.000 RPM.