

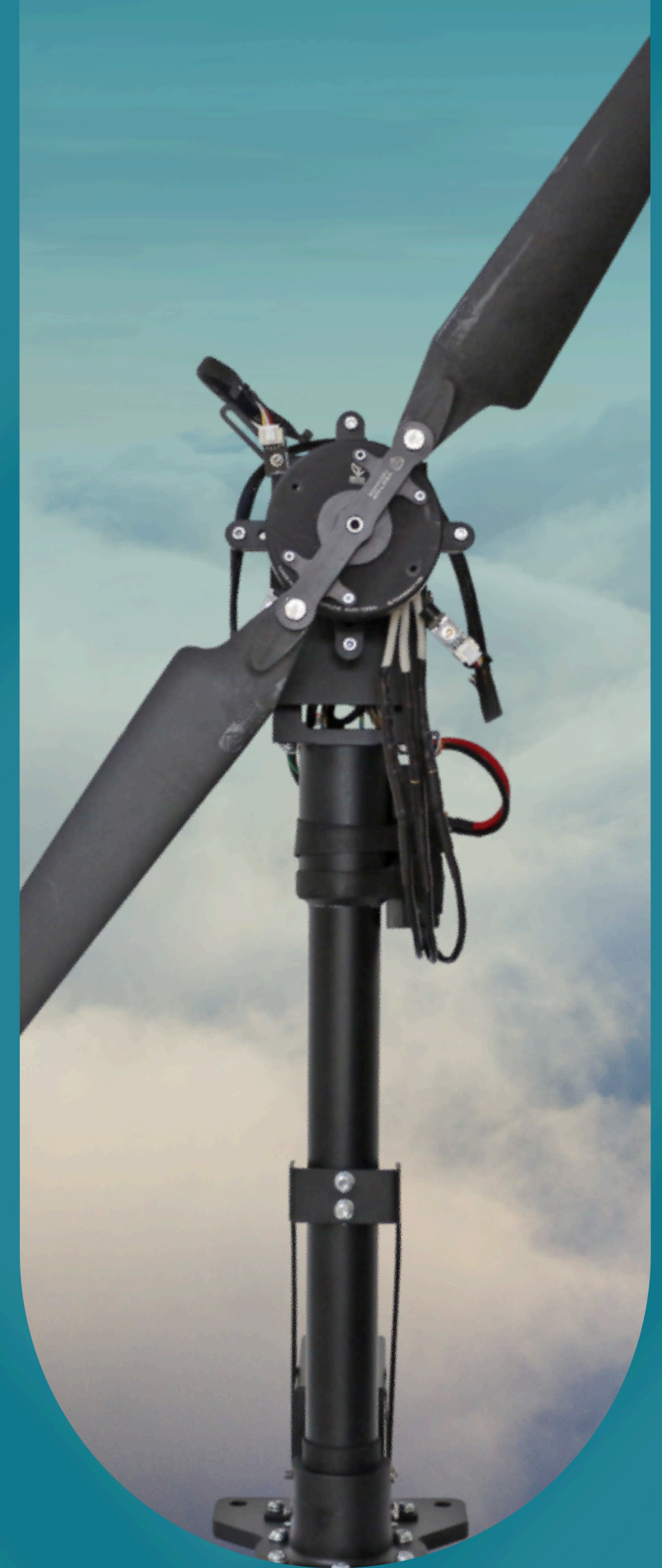


# Get to know with dynotis.

Dynotis is the flagship product of Semai Aviation. It is a test stand for electric motor-propeller configurations.

Featuring a 1000 Hz sampling rate and certified load cells, it allows you to understand your propulsion system's behavior in any scenario. Export your data and speed up your R&D processes with confidence.

[info@semai.com.tr](mailto:info@semai.com.tr)



### Software Features

- ESC Manual Control
- Automatic Test Templates
- Real Time Data Plot (Max. 1000 Hz)
- Current Overload Alarm / Cutoff
- Wireless Data Transmission
- CSV / Excel Data Output
- Dynamic Balancer / Vibration Cutoff

### Direct Measurements

- Thrust / Torque [%99FS Accuracy]
- Voltage / Current [%99 Accuracy]
- RPM / Power
- Motor and ESC Temperature
- Ambient Temperature / Pressure
- System Vibration

### Parameters & Other Features

- Motor Efficiency
- Propeller Efficiency
- Propulsion System Efficiency
- Mean RPM Curves & Std. Deviation
- Dynamic Balancer (ISO 21940)\*
- Co-Axial Testing Rig\*
- Tailor-Made Production\*
- Dynamic Kit\*

| TEST                           |             | PARAMETERS                          | ST-71      | ST-101     | ST-151     |
|--------------------------------|-------------|-------------------------------------|------------|------------|------------|
| DYNAMIC TESTING KIT (OPTIONAL) | STATIC TEST | Thrust (kgf)                        | ± 0.1 - 7  | ± 0.1 - 10 | ± 0.1 - 15 |
|                                |             | Torque (Nm)                         | ± 0.1 - 7  | ± 0.1 - 10 | ± 0.1 - 15 |
|                                |             | Voltage (V)                         | 5 - 60     | 5 - 100    | 5 - 100    |
|                                |             | Current (A)                         | 0 - 75     | 0 - 90     | 0 - 90     |
|                                |             | Maximum Motor Rot. Speed (RPM)      | 100 000    | 100 000    | 100 000    |
|                                |             | Pressure (hPa)                      | 300 - 1100 | 300 - 1100 | 300 - 1100 |
|                                |             | Ambient Temperature (°C)            | -40 / 85   | -40 / 85   | -40 / 85   |
|                                |             | Motor / ESC Temperature (°C)        | -20 / 350  | -20 / 350  | -20 / 350  |
|                                |             | Power (W)                           | ✓          | ✓          | ✓          |
|                                |             | Figure of Merit (%)                 | ✓          | ✓          | ✓          |
|                                |             | Propulsion Sys. Efficiency (%)      | ✓          | ✓          | ✓          |
|                                |             | Propulsion Sys. Efficiency (gram/W) | ✓          | ✓          | ✓          |
|                                |             | Motor + ESC Efficiency (%)          | ✓          | ✓          | ✓          |
|                                |             | Vibration (g)                       | ✓          | ✓          | ✓          |
|                                |             | Maximum Propeller Diameter (in)     | 30         | 30         | 30         |
|                                |             | Propeller Efficiency (%)            | -          | ✓          | ✓          |
|                                |             | Wind Speed & Direction              | -          | ✓          | ✓          |

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| TEST                           |                                 | PARAMETERS                          | ST-251     | ST-351     | ST-501     |
|--------------------------------|---------------------------------|-------------------------------------|------------|------------|------------|
| DYNAMIC TESTING KIT (OPTIONAL) | STATIC TEST                     | Thrust (kgf)                        | ± 0.1 - 25 | ± 0.1 - 35 | ± 0.1 - 50 |
|                                |                                 | Torque (Nm)                         | ± 0.1 - 25 | ± 0.1 - 30 | ± 0.1 - 30 |
|                                |                                 | Voltage (V)                         | 5 - 350    | 5 - 350    | 5 - 350    |
|                                |                                 | Current (A)                         | 0 - 300    | 0 - 300    | 0 - 300    |
|                                |                                 | Maximum Motor Rot. Speed (RPM)      | 100 000    | 100 000    | 100 000    |
|                                |                                 | Pressure (hPa)                      | 300 - 1100 | 300 - 1100 | 300 - 1100 |
|                                |                                 | Ambient Temperature (°C)            | -40 / 85   | -40 / 85   | -40 / 85   |
|                                |                                 | Motor / ESC Temperature (°C)        | -20 / 350  | -20 / 350  | -20 / 350  |
|                                |                                 | Power (W)                           | ✓          | ✓          | ✓          |
|                                |                                 | Figure of Merit (%)                 | ✓          | ✓          | ✓          |
|                                |                                 | Propulsion Sys. Efficiency (%)      | ✓          | ✓          | ✓          |
|                                |                                 | Propulsion Sys. Efficiency (gram/W) | ✓          | ✓          | ✓          |
|                                |                                 | Motor + ESC Efficiency (%)          | ✓          | ✓          | ✓          |
|                                |                                 | Vibration (g)                       | ✓          | ✓          | ✓          |
|                                | Maximum Propeller Diameter (in) | 40                                  | 40         | 60         |            |
|                                | Propeller Efficiency (%)        | ✓                                   | ✓          | ✓          |            |
|                                | Wind Speed & Direction          | ✓                                   | ✓          | ✓          |            |

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| TEST                           |                                 | PARAMETERS                          | ST-751     | ST-1001     | ST-1601     |
|--------------------------------|---------------------------------|-------------------------------------|------------|-------------|-------------|
| DYNAMIC TESTING KIT (OPTIONAL) | STATIC TEST                     | Thrust (kgf)                        | ± 0.1 - 75 | ± 0.1 - 100 | ± 0.1 - 160 |
|                                |                                 | Torque (Nm)                         | ± 0.1 - 75 | ± 0.1 - 100 | ± 0.1 - 160 |
|                                |                                 | Voltage (V)                         | 5 - 350    | 5 - 350     | 5 - 350     |
|                                |                                 | Current (A)                         | 0 - 500    | 0 - 500     | 0 - 500     |
|                                |                                 | Maximum Motor Rot. Speed (RPM)      | 100 000    | 100 000     | 100 000     |
|                                |                                 | Pressure (hPa)                      | 300 - 1100 | 300 - 1100  | 300 - 1100  |
|                                |                                 | Ambient Temperature (°C)            | -40 / 85   | -40 / 85    | -40 / 85    |
|                                |                                 | Motor / ESC Temperature (°C)        | -20 / 350  | -20 / 350   | -20 / 350   |
|                                |                                 | Power (W)                           | ✓          | ✓           | ✓           |
|                                |                                 | Figure of Merit (%)                 | ✓          | ✓           | ✓           |
|                                |                                 | Propulsion Sys. Efficiency (%)      | ✓          | ✓           | ✓           |
|                                |                                 | Propulsion Sys. Efficiency (gram/W) | ✓          | ✓           | ✓           |
|                                |                                 | Motor + ESC Efficiency (%)          | ✓          | ✓           | ✓           |
|                                |                                 | Vibration (g)                       | ✓          | ✓           | ✓           |
|                                | Maximum Propeller Diameter (in) | 90                                  | 90         | 90          |             |
|                                | Propeller Efficiency (%)        | ✓                                   | ✓          | ✓           |             |
|                                | Wind Speed & Direction          | ✓                                   | ✓          | ✓           |             |