



### Motion Simulators

Wuilfert, an extensive expertise company in developing advanced positioning and rate tables, stabilized platforms, positioning equipment and custom motion products, that are designed for inertial sensors, guidance and navigation systems testing and calibration. Its applications and real time simulation are used in research and development, design, manufacturing and maintenance activities in the fields of commercial, aerospace, aviation, defense, space, automotive and laboratory applications. Thus, **Wuilfert** is committed to upholding the highest standards of product development and manufacturing quality.

**Structural Solutions Pvt Ltd** exclusively represents **Ms Wuilfret Inc**, France in India. **Structural Solutions Pvt Ltd** is an ISO9000 certified professional engineering in offering motion simulators in the field of aerospace, aviation, defense, space and automotive Industry.

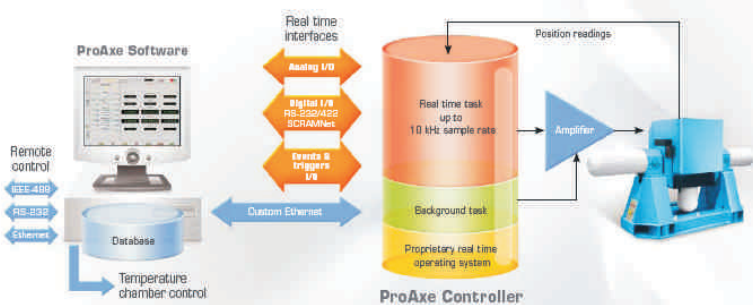


### Single Axis, Dual Axis & Tri Axis Rate Tables

Wuilfert is a leading manufacturer of motion simulators, offering a range of one to three axis positioning and rate tables with revolutionary control technology.

The Table System consists of a positioning/rate table together with a Proaxe Controller, PROAXE Software and optional temperature chamber with integrated control capabilities. The rate table may be single axis, dual axis or three axis. The Wuilfert ProAxe Controller replaces time-consuming efforts required to manually adjust system control parameters according to payload with a fully automated auto-tuning(\*) process. Physical parameters such as unbalance, frictions, mass, inertia, etc. are determined. The ProAxe Software is the coordinated control of both the table and the optional temperature chamber. Coordinated control of both motion and temperature reduces personnel monitoring requirements and accelerates test results. A motion profile can be automatically tested at one temperature and then halted until the chamber has reached another pre-programmed temperature.

The following are the different Wuilfret rate tables which come with the latest version of the Wuilfert motion Controller in conjunction with the widely respected Wuilfert ProAxe Software. The available communication interfaces are Analog I/O, RS-422, SCRAMNet, RS-232, Ethernet, IEEE-488



#### Model : MO-01PV

##### High Precision Single Axis Positioning & Rate Table

- Unlimited rotation
- 2 arc sec positioning accuracy
- Up to 1900 deg/s rate
- Temperature chamber (optional)
- Bandwidth upto 30Hz



#### Model : Bi-05P

##### High Precision Two-Axis Positioning Table Optimized for Maintenance Testing

- Limited angular range on both axes (unlimited inner axis rotation as an optional feature)
- Bandwidth Up to 5 Hz
- Maximum acceleration with payload 20 deg/s<sup>2</sup>



#### Model :BI-07PV/CL

##### High Precision Two-Axis Positioning Table Optimized for Production Testing

- Limited angular range on both axes or unlimited inner axis rotation (optional)
- Mechanically refrigerated Temperature Chamber
- Bandwidth Up to 25 Hz



#### Model :BI-210PV/CL

##### High Precision Two-Axis Positioning and Rate Table with Unlimited Motion

- Unlimited motion on two axes
- Mechanical temperature chamber
- Bandwidth Up to 25 Hz
- Range  $\pm 0.0001$  deg/s -  $\pm 1200$  deg/s  $\pm 0.0001$  deg/s -  $\pm 400$  deg/s



# Products

## Model : TRI-400 Series

### High Precision Three-Axis Positioning and Rate Table

- Up to 1000 deg/s rate and 15 000deg/s<sup>2</sup> acceleration
- Unlimited motion on three axes
- Range: Inner axis :  $\pm 0.0001$  deg/s -  $\pm 1000$  deg/s middle axis:  $\pm 0.0001$  deg/s -  $\pm 500$  deg/s, Outer axis:  $\pm 0.0001$  deg/s -  $\pm 400$  deg/s
- Bandwidth Up to 30 Hz Up to 20 Hz Up to 10 Hz
- Cryogenically cooled temperature chamber (optional)



## PROAXE-SOFTWARE

### Advanced Graphical User Interface for Motion Simulators

- Most user-friendly and intuitive interface on the market
- Windows-based application available with a large display screen
- Embedded database for easy configuration
- Integrated temperature chamber control
- Remote control (RS-232, IEEE-488, Ethernet) using Wuilfert or customized protocol
- Auto-tuning(\*) and advanced data-logging functions when combined with ProAxe Controller



## PROAXE-CONTROLLER

### Motion Simulator Controller with Revolutionary Auto-Tuning and Fault Detection

- Model-based LQG digital control for unrivalled performance
- Proprietary Auto-tuning(\*) function to eliminate need for manual system adjustment when payload changes
- Kalman filtering Fault Detection(\*) automatically shuts down system when problem detected
- Real time data-logging
- Windows based ProAxe Software graphical user interface for user-friendly and intuitive operation



## New, EVO Series Positioning and Rate Tables

Wuilfert a leading provider of positioning/ rate tables and motion simulators, has introduced the new EVO Series to provide testing and calibration solutions that evolve as the changing of the needs.

Advantages of the EVO Series include advanced software capabilities and the ability to upgrade system performance as product design, testing and calibration requirements evolve.

## Model :EVO-10

### Evolutional High Precision Single-Axis Positioning and Rate Table: EVO-10

The single axis EVO-10 table can be operated for testing the angular position, velocity(rate), and acceleration sensitivity of payloads. An optional pedestal is also available.



- Optimized for MEMS sensors and IMU testing and calibration
- Vertical and horizontal operation with unlimited rotation
- Upgradeable to EVO-20 two-axis table
- Temperature chamber (optional) compatible with EVO-20 two-axis table
- Modular Control Unit
- Bandwidth Up to 75 Hz
- Range  $\pm 0.001$  deg/s -  $\pm 1500$  deg/s

## Model : EVO-20

### Evolutional High Precision Single-Axis Positioning and Rate Table

In addition to the EVO-10, the EVO-20 provides dual axis testing. The EVO-20 provides unlimited two axis motion and is a direct upgrade to the EVO-10 Series. The two axis yoke design is comprised of the EVO-10 providing the inner axis. An optional temperature chamber can be incorporated to verify a payload's performance as a function of temperature.



- Optimized for MEMS sensors and IMU testing and calibration
- Two-axis unlimited rotation
- Upgradeable from EVO-10 single-axis table
- Temperature chamber (optional)
- Modular Control Unit
- Range  $\pm 0.001$  deg/s -  $\pm 1500$  deg/s  $\pm 0.001$  deg/s -  $\pm 500$  deg/s
- Bandwidth: Inner axis: Up to 75 Hz, Outer axis: Up to 30 Hz
- Maximum acceleration with payload: Inner axis:  $\pm 1000$  deg/s<sup>2</sup> outeraxis:  $\pm 100$  deg/s<sup>2</sup>

➔ For further product & application details please contact:

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