

## **Model 9790-BVR Scorsby Motion Test Table**

### **STANDARD FEATURES**

- Heavy-duty table frame designed for heavy load capabilities
- Approved for many aircraft gyroscopic instrument tests
- Anodized aluminum mounting platform for durability and corrosion resistance
- Designed with ball bearings for smooth motion and long life
- Flat, precision-ground table top mounting surface
- Tilting head with engraved markings for easy adjustment
- Automatic homing
- Positive stop allows quick setting of the tilt head to frequently used positions
- Two bubble levels mounted under table top provide quick, easy leveling
- Motor and drive train designed for reliability and long life
- LCD shows current speed, number of cycles, and shaft position (Mode dependent)
- Oscillation reversing with cycle counter provides testing versatility from 1 to 99 cycles
- RS-232 Remote Communications Interface
- Variable speed from 3 to 60 Cycles/Minute

### **DESCRIPTION**

The Model 9790-BVR Scorsby Motion Test Table is designed to simulate the 3 motions of flight: roll, pitch, and yaw. Originally designed for shop, production, qualification testing, and exercising of gyroscopic aircraft instruments, the Scorsby table became a standard in the aircraft industry. Currently, the Scorsby table is used for testing inertial sensors including gyroscopic components and motion sensing systems in a wide variety of industries.



The Model 9790-BVR is the heavy-duty stand alone version of the 1421 Series Scorsby Table with up to a 500 pound payload capacity. The Scorsby Table can be operated through the front panel controls or the remote communications interface. The front panel consists of a power switch, LCD display, and four keys: run/menu, increase, decrease, and enter. Full computer-controlled automation can be accomplished with an RS-232 (standard) or IEEE-488 (optional) interface.

The closed-loop motion control system consists of a DC motor, a digital microprocessor-based controller, an optical encoder, and a series of cogged belts to provide the required gear reduction. The encoder is located on the shaft of the motor to provide high resolution feedback for smooth, stable Scorsby motion with a constant frequency.

The pitch, roll and yaw motions are achieved with a single rotating shaft and Ideal Aerosmith's patented head design. The sinusoidal motion of each of the axes is related to the shaft motion and cannot be controlled independently.

### **OPTIONS**

- IEEE-488 Interface
- *For special requirements, please contact Ideal Aerosmith regarding system customization.*

<b>Model 9790-BVR Specifications</b>	
<b>Control Modes</b>	Off, Left, Right, Oscillate
<b>Overall Dimensions, in. (mm)</b>	30.0 W x 24.0 L x 40.7 H (762 x 610 x 1034)
<b>Rate of Motion</b>	Standard: Adjustable from 3 to 60 cycles per minute with a resolution of .1 cycles/minute
<b>Tilt Angle Range</b>	0 to 15 Degrees, Infinitely Adjustable with Set Points engraved at 0.1 Degree Intervals
<b>Tilt Angle Markings</b>	0, 5, 10 and 15 Degrees
<b>Test Load Capacity</b>	Up to 500 lbs. (227 kg) Centered Loading.
<b>Operating Temperature Range</b>	50° to 95° F (10° to 35° C)
<b>Electrical Power Requirements</b>	IEC 60320 Power Inlet Module 115 Volts, 50/60 Hz; 230 Volts available
<b>Mounting Platform Dimensions, in. (mm)</b>	30 x 24 (762 x 610) with square pattern .375-16 UNC threaded holes, 3 inch (76.2mm) centers
<b>Shipping Weight</b>	Approximately 500 lbs (227 kg)
<b>Finish</b>	Blue paint per 230305-1 Anodize and dye black per 230305-3

<b>Buyer's Guide</b>		
<b>Model Number</b>	<b>Part Number</b>	<b>Description</b>
9790-BVR	230235-2	115 Vac, 50/60 Hz, RS-232 Interface 3 to 60 cycles/min
9790-BVR-230	230235-1	230 Vac, 50/60 Hz, RS-232 Interface 3 to 60 cycles/min
9790-BVR-488	230235-3	115 Vac, 50/60 Hz, IEEE-488 Interface 3 to 60 cycles/min
9790-BVR-230-488	230235-4	230 Vac, 50/60 Hz, IEEE-488 Interface 3 to 60 cycles/min

For special requirements or custom specifications, contact Ideal Aerosmith. Specifications are subject to change without notice. Please call for pricing.

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