

SPINSTAND

For Head & Media Testing, Servo Track Writing



Optical Sensing Technology and Motion Control Technology, with original Canon components and Create an outstanding record in the HDD market: Their merging has created high-performance Spin Stands / Servo Track Writers

Instruments such as semiconductor manufacturing equipment, servo track writers, and media testers require high speed and high precision. Our rotary positioners, linear sensors, and air-bearing spindles have many outstanding achievements in these fields, and they are used as key components within this equipment.

FEATURES

Head-testing Rotary SpinStands (RS-5220U)

- High-precision compact design contributes to space reduction and efficiency.
- High through-put is achieved by installing high-speed stage.
- High resolution of 1nm is achieved without piezo electricity; compatible with 250,000TPI.
- Compatible with HGA and HSA.
- Compatible with disc sizes from 1" to 3.5". Compatible with both actual units and evaluations.

Media-Testing Rotary SpinStands (RS-2050U)

- Rotary spinstand developed for media testing.
- RRO and NRRO significantly reduced by using disc self-alignment.
- High resolution of 1nm is achieved without piezo electricity; compatible with 250,000TPI.

- Equipped with high-speed, high-precision spindle motor.
- Compatible with disc sizes from 1" to 3.5". Compatible with both actual units and evaluations.

Servo Track Writer (SW-1650)

- Capable of generating clock signals without clock heads or clock discs, by using a spindle equipped with a laser encoder.
- Capable of simultaneously tracking many discs; productivity greatly enhanced.
- RRO and NRRO significantly reduced by using disc self-alignment.
- Compatible with disc sizes from 1" to 3.5".
- Compact design, contributing to the space saving and efficiency in clean room.

RS-5220U

High precision, compact rotary spinstand for head testing



- Compact, high precision, contribute to space saving
- High through-put achieved by installing high-speed stage
- High resolution of 1nm achieved without piezo electricity; compatible with 250,000TPI
- Compatible with HGA, HSA.
- Compatible with disc sizes from 1" to 3.5". Compatible with both actual units and evaluation

SPECIFICATIONS

1. Head positioning

θ stage	Canon rotary positioner
Stroke	±30deg (center is Z phase position)
Resolution	0.0039 arc-sec (16 arc-sec / 4096)
	1.0nm at R56mm
X-stage	Servo motor and lead screw
Stroke	100mm
Resolution	0.5μm
Positioning repeatability	5μm or less (Vacuum lock)
Maximum speed	200mm/sec

2. Disk spindle

Bearing method	Canon Air Bearing spindle motor
Rotation speed	600~22,000rpm
Rotation unevenness	0.001% or less
Acceleration, deceleration time	5 sec or less (0 to 10,000rpm)

3. ENVIRONMENTAL SPECIFICATIONS

Power	AC90~240V 800VA
Air supply	490kpa 6N ℓ /min (Dry Clean Air)
Vacuum pressure	-70kpa
Operating temperature, humidity	18~28°C, 30~80% (no condensation)
Storage temperature, humidity	0~60°C, 0~85% (no condensation)

4. Others

External dimensions	Spinstand body: 400 x 450 x 400mm Spinstand controller: 442 x 600 x 252mm
Weight	90kg (Spinstand body) 45kg (Spinstand controller)

Composition

- Spinstand body
 - Spinstand controller
 - Fixture (Head cartridge)
 - Head amp. unit
 - Disk clamp unit

■ Option

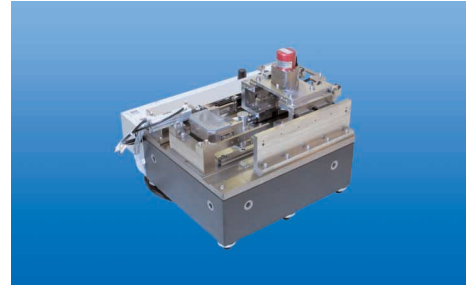
- Head loader, Fixture (for head)
- Head amp. board (for head)
- Calibration Kit (for head)
- Windshield (for disk)
- Stabilizer (for disk)
- Safety cover
- Antivibration table
- Vacuum pump
- Air clean kit

■ Adjustment tools

- Spindle dynamic balance kit
- Z height alignment kit
- θ Axis alignment kit
- Torque wrench

RS-2050U

High precision, high speed response rotary spinstand for media testing



- Rotary spin stand developed for media testing
- RRO and NRRO significantly reduced by using disc self-alignment
- High resolution of 1nm achieved without piezo electricity; compatible with 250,000TPI
- Equipped with high-speed, high-precision spindle motor
- Compatible with disc sizes from 1" to 3.5". Compatible with both actual units and evaluation

SPECIFICATIONS

1. Head positioning

θ stage	Canon rotary positioner
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Maximum speed	200mm/sec

2. Disk spindle

Bearing method	Canon Air Bearing spindle motor
Rotation speed	600~22,000rpm
Rotation unevenness	0.001% or less
Acceleration, deceleration time	5 sec or less (0 to 10,000rpm)

3. ENVIRONMENTAL SPECIFICATIONS

Power	AC90~240V 800VA
Air supply	490kpa 6N ℓ /min (Dry Clean Air)
Vacuum pressure	-65kpa
Operating temperature, humidity	18~28°C, 30~80% (no condensation)
Storage temperature, humidity	0~60°C, 0~85% (no condensation)

4. Others

External dimensions	Spinstand body: 545 x 470 x 410mm Spinstand controller: 442 x 600 x 252mm
Weight	150kg (Spinstand body) 45kg (Spinstand controller)

Composition

- Spinstand body
 - Spinstand controller
 - Fixture (Head cartridge)
 - Head amp. unit
 - Disk clamp unit
- Option
 - Head loader, Fixture (for head)
 - Head amp. board (for head)
 - Calibration Kit (for head)
 - Windshield (for disk)
 - Stabilizer (for disk)
 - Safety cover
 - Antivibration table
 - Vacuum pump
 - Air clean kit
- Adjustment tools
 - Spindle dynamic balance kit
 - Z height alignment kit
 - θ Axis alignment kit
 - Torque wrench

SW-1650

Servo Track Writer for next generation

- Capable of generating clock signals without clock heads or clock discs, by using a spindle equipped with laser rotary encoder.
- Capable of simultaneously tracking many discs; productivity greatly enhanced.
- Realized maintenance free by using air bearing.
- Adopted rotary positioner for head actuator, realized same skew angle as real HDD.



SPECIFICATIONS

1. Head positioning

θ stage	Canon rotary positioner
Stroke	±30deg (center is Z phase position)
Resolution	0.0039 arc-sec (16 arc-sec / 4,096) 1.0nm at R56mm

2. Diskspindle

Bearing method	Canon Air Bearing spindle motor
Pulse	83,328 pulse per rotation (A/B phase signal)
Rotation speed	3,000~10,000rpm
Rotation unevenness	0.001% or less
Acceleration, deceleration time	5 sec or less (0 to 10,000rpm)
X-stage	Servo motor and lead screw
Stroke	100mm
Resolution	0.5μm
Positioning repeatability	5μm or less (Vacuum lock)
Maximum speed	200mm/sec

3. ENVIRONMENTAL SPECIFICATIONS

Power	AC90~240V 800VA
Air supply	490kpa 6N ℓ/min (Dry Clean Air)
Operating temperature, humidity	18~28°C, 30~80% (no condensation)
Storage temperature, humidity	0~60°C, 0~85% (no condensation)

4. Others

External dimensions	Servo Writer body: 350 x 540 x 1240mm
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Composition

- Servo writer mechanical
 - Rotary positioner
 - X-stage
 - Air spindle motor
- Servo writer control box
 - Rotary positioner control board
 - X-Stage control board
 - Air spindle driver
 - Encoder interface unit
 - Pattern generator board
 - CPU board
- Option
 - Head loader, Fixture
 - Head Amp. board