ANTENNA TOWERS AND TRIPODS

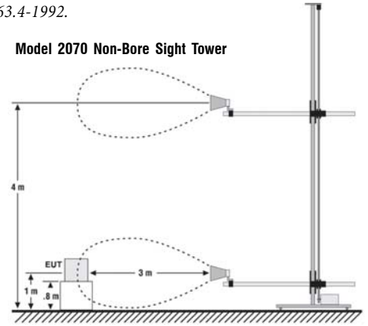
Full-Sized Antenna Towers

Our Full-Sized Antenna Towers offer rugged construction, toothed belt drives and important safety features. These towers utilize fiber optic signal lines between controller and motor base, eliminating a potential source of EMI noise.

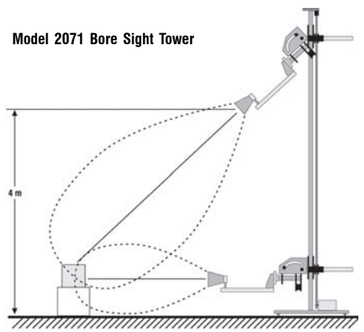
- Patented Bore-Sight System option provides better antenna aim
- Centerline polarization improves accuracy
- Toothed belt drive provides smooth operation
- Fiber optic control lines

The Model 2071 features ETS-Lindgren's patented Bore Sight System, an operation necessary for meeting measurement standards requirements such as CISPR 16, VDE 0876, and ANSI C63.4-1992.

Model 2070 Non-Bore Sight Tower



Model 2071 Bore Sight Tower



Compact Antenna Tower

The scaled-down design of the MiniMast™ maximizes available space, while offering many features found on full-sized ETS-Lindgren antenna towers. The base takes up little floor space and is designed to provide maximum clearance for polarization of large antennas.

The short height allows engineers to easily perform 1 m to 2 m scans, while the 1.5 m included mast extension allows up to 4 m scans to be performed in larger chambers or Open Area Test Sites.

- Ideal for today's compact chambers
- 1 m - 2 m or 4 m scan height range
- Offset boom improves accuracy
- Rugged construction for indoor/outdoor use (includes large polyurethane wheels)
- Fiber optic control lines

Manual Antenna Tower

Our portable antenna tower is useful for quick measurements, pre-scans, and anywhere a portable tower is needed. The Model 1052 has two fiber glass mast sections, a hand winch and four extending aluminum legs that are easily assembled/disassembled for ease of transportation.

- Portable
- Legs extend for stability
- Assembles/disassembles easily

Tripods

ETS-Lindgren produces two high quality tripods for mounting antennas and test accessories.

- Non-metallic
- Non-RF reflective
- Easy-adjust height controls
- Pneumatic polarization option
- Quality construction

TURNTABLES

Classic Series Turntables - Conductive

Our Classic Series Turntables have a long legacy of durability and trouble-free operation. They have been installed indoors and outdoors at test sites around the world, and have set the standard for others to follow. Available in a variety of standard diameters, weight loadings and drive speeds, these turntables can also be customized to meet your exact requirements.

- 1.2 m - 6 m diameter
- 450 kg - 9000 kg load rating
- Ground Brush and floor flange
- Single, dual and variable speeds
- Fiber optic control lines

Value Series Turntables - Conductive

Designed for applications requiring a mid-sized turntable with reasonable weight load requirements, these turntables do not have the heavy-duty carriage of The Classic Series Turntables, permitting a shallow installation depth. Turntable tops are precision machined in our shop using CNC milling equipment for a smooth, even platform that is warp resistant. Adjustable leveling screws for uneven ground surfaces are provided.

- 2 m - 3m diameter
- 910 kg - 1100 kg load rating
- Ground brush and floor flange
- Single and variable speeds
- Fiber optic control lines

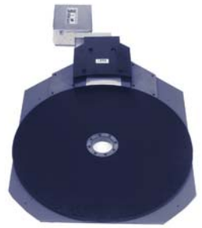
Low Profile Turntables - Conductive

ETS-Lindgren's EuroPro™ Turntable family is ideal for today's EMC test applications where height is a concern and installation options may be limited. All turntables in this series are metal topped, have a variable speed operation, and feature a ground plane interface system to simplify installation. Built to high quality standards, the EuroPro has a two year warranty.

- 1.2 m - 2 m diameter
- 14.8 cm low profile
- 500 kg - 1,000 kg load rating
- Integrated ground plane interface
- Fiber optic control lines

Low Profile Turntables - Non Conductive

Our LoPro™ Turntable is ideal for today's EMC test applications where height is a concern and installation options may be lmited.



- 1.2 m diameter
- 270 kg load rating
- 5 cm ultra low profile
- Fiber optic control lines
- Surface mount, portable
- Non-slip, toothed-belt drive

Pre-scan Series - Non Conductive

ETS-Lindgren's PVC/ABS Topped Pre-Scan Turntables are perfect for performing pre-scans, where coupling with the ground plane is not required.

- 1.2 m - 1.5 m diameter
- 450 kg load rating
- Fiber optic control lines

Pre-Scan Series - Non Conductive

ETS-Lindgren's Wood-Topped Pre-Scan Turntables are perfect for performing pre-scans, where coupling with the grand plane is not required.

- 1.2 m diameter
- 450 kg load rating
- Manually operated

POSITIONING CONTROLLER

Model 2090 Multi-Device Positioning Controller

The ETS-Lindgren Model 2090 Multi-Device Positioning Controller allows the user to synchronize the simultaneous, yet independent movement of two primary devices such as towers or turntables in either manual or remote GPIB modes while controlling the on/off operation of up to four auxiliary devices. Numeric displays and status indicators are provided for each device to show positioning and operational information, as well as device parameter settings. A partial list of commands include: UP/CW, DOWN/CCW, STOP, STEP (jog), SCAN, SEEK, POL. Compatible with all ETS-Lindgren antenna towers, turntables, MAPS™ and other positioning equipment.

- Controls 2 primary, 4 auxiliary devices
- Automatic soft position limit settings
- Speed control/ramping/deceleration
- Automatic target overrun correction
- High-display/positioning resolution
- Non-volatile memory
- Flash upgradeable firmware
- Fiber optic control lines

Pre-Scan Series - Non Conductive

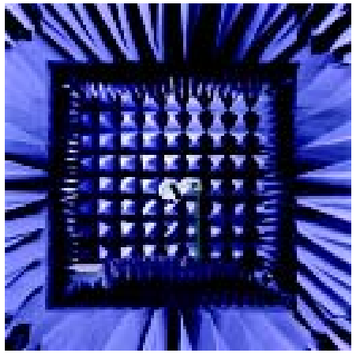
Our Hand Control Unit lets you manually operate most ETS-Lindgren towers and turntables from the motor base, for simple adjustments during test setup.

- Convenient for test setup
- Works with Model 2090 Positioning Controller

MULTI-AXIS POSITIONING SYSTEMS

Combined Multi-Axis Positioning Systems

ETS-Lindgren's MAPS (Multiple Axis Positioning Systems) are designed to provide smooth independent rotation of a test object in both theta and phi axes. Typically, these units are used as part of a system for measuring spherical antenna patterns and the total and effective radiated power of a wireless device. Three models provide support for light (.45 kg), medium (4.5 kg) or heavy-duty (35 kg) test objects. Low reflective dielectric materials are used in the construction to minimize RF obstruction or distortion.



ETS-Lindgren AMS-8000 System

Additional Product Information

Request our other brochures and catalogs for information about antennas, absorber, probes, and all the products we manufacture.

OPTIONS

Towers

- Polarization
  Provides 90° of polarization at an adjustable rate of 3° - 30° per second.
  Requires external source of compressed air at 410 kPa – 550 kPa.
- Bore Sighting
  Maintains constant position of the antenna in relation to the EUT during ascent/descent during scans. Antenna can be aimed at the EUT or ground plane below. For CISPR and ANSI requirements.

Turntables

- Country Specific EUT Power Outlets
  Country specific receptacles (with appropriate electrical service) save time when testing products for export.
- EUT Power Outlet Location
  Power receptacles can be placed in almost any location and flush mounted.
- Slip Rings
  Slip rings prevent power and signal lines from being damaged during rotation.
- Mounted LISNs
  LISNS can be mounted to the under carriage of the turntable.
- Variable Speed
  Options are available for multiple fixed or variable speeds.
- Ground Rings
  Available for those turntables which do not include ground rings.

MAPS

- Software
  Software used for radiation pattern and total radiated power measurement of wireless devices is available.

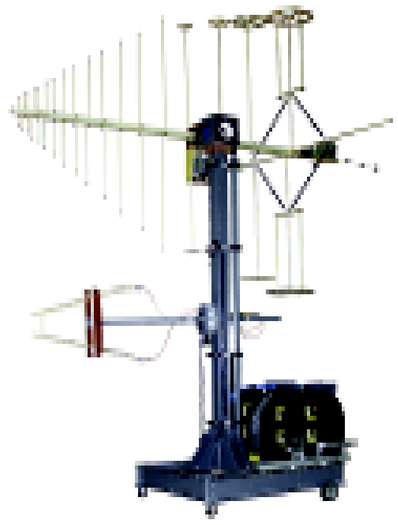
All Products

- Controllers
  Essential for controlling antenna towers, turntables, MAPS, or our other devices. Can be operated manually or under program control via GPIB interface. An auxiliary non-programmable Hand Control Unit (HCU) is also available for some products.

CUSTOM

Custom Products

ETS-Lindgren is a fully integrated manufacturer with engineering, manufacturing, and support functions all under one roof, at our new 70,000 sq. ft. facility in Cedar Park, Texas. Our products are designed using the latest CAD and solid modeling software for optimal performance and functionality. Then they are manufactured in our modern factory using automated machinery to assure precision and accuracy.



Custom Antenna Mast Built for Automotive Testing

About ETS-Lindgren

ETS-Lindgren is the proven world leader for components and systems that measure, shield and control electromagnetic energy. We provide solutions for EMI/RFI/EMF test and measurement applications as well as medical, industrial and governmental RF shielding requirements. Our product line ranges from simple bench-top diagnostic tools to fully integrated turnkey facilities.

ETS-Lindgren's antenna towers and turntables were the first commercially available units for EMC measurement applications. Today, our company has grown to include additional products and services such as; antennas, anechoic absorber, chambers, RF shielded rooms, test cells, modular shielding, EMF measurement systems and other test and measurement equipment.

As part of ESCO Technologies Corporation, we have the financial strength to meet our commitments, both today and tomorrow. A leading supplier of engineered products for growing industrial and commercial markets, ESCO is a New York Stock Exchange listed company (symbol ESE) with headquarters in St. Louis, Missouri.

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Contact the ETS-Lindgren Sales Department for current specifications.
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TEST & MEASUREMENT
POSITIONING EQUIPMENT

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