

# AllTerra Gulf

## Nikon & Spectra Precision Solutions

DELIVERING THE SUPPORT TO KEEP YOU PRODUCTIVE



**Total Stations**



**GNSS Solutions**



**Laser Systems**



[www.allterragulf.com](http://www.allterragulf.com)

## Service Center

Visit our Service Centre for Trimble, Spectra and Nikon Survey Instruments. We repair and calibrate survey instruments of any brand.

We arrange collection and delivery for Abu Dhabi and Dubai.

## AllTerra Gulf

AllTerra Gulf, a part of the Mohamed Abdulrahman Al-Bahar group of companies, is the GCC's premier distributor of Trimble geospatial products used in the fields of mapping, surveying, and construction including Nikon brand total stations and auto levels and the complete range of Spectra Precision survey instruments and lasers.

At AllTerra Gulf, we pride ourselves on the quality and range of products and services we offer to our customers. We supply a complete line of products from the simplest of survey accessories to the full range of surveying equipment, robotic total stations, LIDAR, drones, photogrammetry and GPS/GNSS.

Civil engineering and construction projects present many challenges for which we can offer complete solutions for surveying, monitoring, scanning, and other geo referencing tasks. AllTerra Gulf with our sister companies of SITECH Gulf and Gulf Positioning Services provides a product and technology mix that is unrivaled within the region. With years of experience in providing a quality service to the civil engineering, surveying and construction industries we are committed to provide outstanding customer service to our clients by providing the latest in technology in products, software and services that provide the optimal solution and increase workplace efficiency.



## DELIVERING THE RIGHT SUPPORT TO KEEP YOU PRODUCTIVE

### Laser Solutions



Level Lasers



Pipe Lasers



Horizontal/Vertical Lasers



Layout Lasers



Grade Lasers

### Optical Solutions



Focus Total Stations



Nikon Total Stations



Digital Theodolites



Automatic Levels



Digital Levels

### Software



Survey Pro

### GNSS/Mapping Solutions



ProFlex™ 800



SP80



SP60



MM300



MM120



MM50

### Data Collectors



T41



Ranger



# Laser Level Systems



## Spectra Precision® LL500 Medium Range, Highly Accurate

- Temperature compensation provides highly stable, repeatable accuracy even under large temperature changes
- Working range- 500m
- Accuracy- 1.5mm @ 30m
- Self-leveling with built-in shut off for increased accuracy over the entire work area and reduced errors
- Choice of the HL700 or CR600 receiver



## Spectra Precision® LL400HV Long Range Horiz/Vertical

- Fast setups with horizontal & vertical auto self-leveling
- Ideal for general construction & alignment applications
- Working range- 800m
- Accuracy- 1.5mm @ 30m
- IP66 environmental rating withstands 1.5m tripod tipovers
- Increases flexibility with optional long range radio control allowing auto Grade Matching & PlaneLok in horiz/vert. planes
- Choice of the CR600 or HL760 receiver



## Spectra Precision® LL300N Medium-Range

- Fast setups increases productivity, horiz. & vert. auto self-leveling
- Working range- 500m
- Accuracy- 2.2mm @ 30m
- IP66 environmental rating
- Durable design reduces downtime due to drops and tripod tipovers
- Increases flexibility with optional long range radio remote control
- Choice of the HL450 or HL760 receiver



## Spectra Precision® DG613/DG813

### Pipe Laser

Designed to fit around tighter inverts, the Spectra Precision DG813 and DG613 deliver the most productive pipe laying experience in the market. They are extremely rugged and thrive in demanding underground conditions. Benefitting from the latest technology developed by Spectra Precision, the beams move quickly and accurately for alignment and grade.



The top of the range model, the DG813 comes with a smart Spot Finder, which the laser can align to automatically and can also calculate the grade—great for checking previous work on a second day set-up.

- Shorter length
- Grade range: -12% to +40%
- Self-leveling over the entire grade range and full cross axis compensation
- Ultra-fast beam movement
- Operating range- 150m with radio/IR remote control
- Large, intuitive graphic display on both the laser and remote (similar to UL633)
- IP68 protection (dust and waterproof)
- Flexible power options (NiMH / Alkaline)
- Advanced functions that increase productivity: Line Set/Check (first day setup), Line Scan (second day setup) and Line Alert
- Automatic functions for beam alignment, beam detection, and grade calculation (DG813 only)

# Horizontal & Vertical Laser Systems



## Spectra Precision® HV302

### General Purpose Construction Laser for Interior/Exterior

Single-axis manual slope mode with 'cross-axis' self-leveling allows grade matching for basic slope work, while maintaining accuracy in the cross-axis. Automatic Grade Match and PlaneLok using optional RC402N and HL760.



- Fully automatic self-leveling in both horizontal and vertical for fast, accurate setup
- Line scan & beam plunge for drywalls
- Working range- up to 800m
- Accuracy- 1.5mm @ 30m
- Preset adjustable rotation speed & scan line sizes for all interior application needs
- IP66 environmental rating
- Choice of HR150, HL450 or HL760 receivers

## Spectra Precision® HV101

### Leveling, Aligning, and Plumb Applications

Fully automatic self-leveling in both horizontal and vertical provides fast, accurate setup. Robust design withstands a 3 ft (1m) drop on concrete and still remains functional, reducing costs for downtime or repair.



- Fast setups increase productivity with auto self-leveling
- Beam is easily visible in brightly lit conditions
- Working range- 350m
- Accuracy- 3mm @ 30m
- Durable construction can withstand tough jobsites
- Split beam enables plumb point transfer and 90° layout
- Remote control offers scanning, speed control, slope setting, and alignment control for fast one person setups

## Spectra Precision® QML 800

### Quick Mark Layout System

The first tap 'n go interior layout system. Complicated shapes, arcs and curves are now easy to layout with no calculations required. Days of layout now become hours. Accuracy is improved and errors are not compounded from point to point.

- Visible X marks the spot
- Intuitive tablet interface with wireless communications between tablet and lasers
- Accuracy of  $\pm 3$  mm
- Working range of 30m x 30m, visible distance up to 22m
- Locates points in 5 seconds with multiple point entry methods
- Labor reduction up to 50%
- Fast setup with minimal training- reduces trade conflicts on the job site
- Complex shapes and dense areas are easy to layout



### New BuildView Field and Office Software

With the QML800, architectural files can now be loaded directly onto the tablet. The floor plan can be viewed in the BuildView field software.

Locating a point on the floor is as simple as tapping on the desired intersection or point on the drawing. BuildView is powerful, fast and simple to use.





# Grade Laser Systems



## The Most Comprehensive Range of Grade Laser You Will Find Today

All Spectra Precision® grade lasers are fully self-leveling and provide both single and dual grade lasers to meet all jobsite grade requirements.

Spectra Precision grade lasers automatically self-level to the desired grade elevation providing full control whilst working on sports pitches, car parks, roads, rail or other surfaces requiring grade.

## Spectra Precision® GL700 Series High Precision, Extra Long Range Grade Lasers

- Extremely rugged laser designed for machine control
- Temperature compensation that provides accurate stable results regardless of temperature changes
- Long range- 900m diameter
- High accuracy- 4.6 arc seconds, 1.5 mm @ 60 m
- Dual grade (GL722, GL720) range: +/-10% X axis, -0.5% to +25% Y axis
- Single grade (GL710) range: -0.5% to +25% Y axis
- Full function long range wireless remote control
- **\*PlaneLok** (GL722 only) capable

### Automatic **\*PlaneLok** (GL722, GL622) Eliminates Beam Drift

Throughout the day beam drift occurs with all lasers as the temperature changes. The beam is locked on to the receiver and stays at the desired elevation all day long eliminating costly errors.

## Spectra Precision® GL622

### Versatile, ±25% Dual Grade

- Ability to control level, alignment, single/dual grade and set 90°
- **\*PlaneLok** capable and auto-axis alignment feature
- Alignment range for both axes ± 40°
- Full function remote control does everything you can do at the laser
- Working range: 800m
- Accuracy: 10 arc seconds, 1.5mm @ 30m
- Automatic temperature and grade compensation for high accuracy in any weather



## Spectra Precision® GL422N / GL412N Dual & Single Grade, Vertical Alignment

- Menu driven user interface reduces learning time & simplifies time to activate advance features
- Working range- 800m
- Accuracy- 10 arc seconds, 1.5mm @ 30m
- Grade (single GL412N, dual GL422N) range: -10 to +15%
- RC402N radio remote allows control of all laser functions up to 100m
- IP66 environmental rating withstands 1.5m tripod tipovers
- Automatic Grade Match eliminates time consuming and error prone calculation
- Mask mode eliminates interference with other crews on jobsite
- Choice of the CR600 or HL760 receiver



# Focus® Total Stations

## Powerful, Tough and Reliable

The Focus Series total stations offer versatility with the choice of onboard software: Spectra Precision Survey Pro™, Layout Pro field software or Survey Basic with roads software.

Designed to meet the needs in construction and surveying, the Focus Series delivers maximum precision, reliability and affordability.

## Focus® 8 Series

### Compact, Affordable Total Station

The FOCUS 8 instruments are compact, lightweight and built tough to use on any work site in all dust, dirt and weather conditions. The fast, long range EDM measures in both prism and reflectorless modes with both being available at the same time and initiated with a single key press.

- 2" and 5" angle accuracy
- Affordable Total Station
- Windows CE
- Accurate distances and stable angles
- Up to 500m reflectorless measurement
- Tough and reliable
- Spectra Precision Survey Pro onboard
- All-weather construction
- Long battery life



	FOCUS 8	
	2" (0.6mgon)	5" (1.5mgon)
Accuracy (ISO 17123-3)	2" (0.6mgon)	5" (1.5mgon)
Distance Measure	Good Condition	
Reflectorless (KGC 90%)	up to 500m	
w/ Single Prism	3,000m	5,000m
Distance Accuracy	±(3+3 ppm × D) mm	

## Focus® 35 Series

### Fully Robotic Total Station

The powerful Spectra Precision FOCUS® 35 Total Station is a fully robotic motorized solution provides improved speed, accuracy and precision in measurement.

- StepDrive™ motion technology
- LockNGo™ tracking technology
- Spectra Precision Survey Pro™ software on-board
- Available in 1", 2", 3" and 5" angle accuracies
- Long-range, reflectorless distance measurement
- Available RX models with extended operation dual battery system.
- High-precision prism measurements
- GeoLock™ GPS-assist technology
- PIN code security locking system



	FOCUS 35			
	1" (0.3 mgon)	2" (0.6 mgon)	3" (1.0 mgon)	5" (1.5 mgon)
Accuracy	1" (0.3 mgon)	2" (0.6 mgon)	3" (1.0 mgon)	5" (1.5 mgon)
Distance Measure	Good Condition			
Reflectorless (KGC 90%)	up to 400m			
w/ Single Prism	4,000m			
Distance Accuracy	with Prism (ISO 17123-4)			
Standard	2 mm + 2 ppm			
For 1 Sec Focus	1 mm + 2ppm			
Tracking Mode	5 mm+2 ppm			
Max. Robotic Range	300m to 800m			



# Nikon Total Stations



## Next Generation of Measurement Tools

Nikon's next generation total station is the Nivo™ Total Station, available in two exciting lines: the Nivo C Series and Nivo M Series. Both of the Nivo series are the absolute leaders for go anywhere measurement tools.

Compact in size and lightweight, they are convenient to carry over long distances. All Nivo models are supported with legendary Nikon high clarity optics, allowing clearer images in bright and low light conditions, making measurements easy and reducing eye stress.

## Nikon™ Nivo C Series High Productivity Total Stations

The Nivo C Series is designed with a feature-packed Windows® CE touch-screen interface. Three powerful field software applications cater for all levels of your surveying and construction measurement needs.

- Spectra Precision® Survey Pro™ software
- Survey Basic with Roads software
- Layout Pro software
- Communication: 1 x serial (RS-232C), 2 x USB (host and client); Integrated Bluetooth®



	NIVO C SERIES			
	1.C	2.C	3.C	5.C
Accuracy ISO 17123-3	1"	2"	3"	5"
Distance Measure	Good/Normal Condition			
Reflectorless (KGC 90%)	500m/400m		500m/500m	
w/ Single Prism	3,000m		5,000m	
Accuracy (Prism; Reflectorless)	(2+2 ppm x D) mm; (3+2 ppm x D) mm			

## Nikon™ Nivo M+ Series An Intuitive Total Station

Nikon has combined simplicity and quality together in perfect harmony to produce the Nikon M+ Series. These compact and efficient products use a field-proven Nikon interface and field software that is quick to learn and easy-to-use.

- Built-in function to separately configure different prism or reflectorless measurement parameters
- A complete set of CoGo functions
- Simple data management of files
- Quick-coding for convenient one-button data collection of point features and your raw target data
- Communication: 1 x serial (RS-232C), 1 x USB (host); Integrated Bluetooth®



### Continue Your Work with No Interruptions.

There is no need to worry about interrupting your workflow when power gets low, thanks to long-lasting, hot swappable batteries.

	NIVO M+ SERIES		
	2.M+	3.M+	5.M+
<b>Accuracy</b> ISO 17123-3	2" (0.5mgon)	3" (1.0mgon)	5" (1.5mgon)
<b>Distance Measure</b>	Good/Normal Condition		
Reflectorless (KGC 90%)	500m/400m		500m/500m
w/ Single Prism	3,000m		5,000m
<b>Accuracy</b> (Prism; Reflectorless)	(2+2 ppm × D) mm; (3+2 ppm × D) mm		





## Nikon™ NPL322+ Series

### Verstatile Reflectorless Total Stations

The NPL-322+ Total Station is an economic, versatile, and easy-to-use platform that ensures you get the job done right. Legendary Nikon optics effectively allow in more light to give you brighter, clearer images.

- Fast, accurate EDM
- 50,000 point onboard storage
- Dual face (2"), and Single face (5") model
- Dual axis compensation
- Convenient and long-lasting Li-ion battery
- Communications: 1 x serial (RS-232C) , Integrated Bluetooth®



	NIKON NPL322+	
	NPL-322+ 2"	NPL-322+ 5"
<b>Accuracy</b> ISO 17123-3	2" (0.6mgon)	5" (1.5mgon)
<b>Distance Measure</b>	Good Condition	
Reflectorless (KGC 90%)	1.5 m to 400 m	
w/ Single Prism	1.5m to 3,000 m	
<b>Accuracy</b> (Prism; Reflectorless)	(2+2 ppm x D) mm; (3+3 ppm x D) mm	

## Nikon™ DTM322+ Series

### Economical, Verstatile Total Stations

The DTM-322+ Total Station is an economic, versatile, and easy-to-use platform that ensures you get the job done right. Among the fastest total stations in its class, so you can move quickly through your routines and spend less time in the field. The DTM-322+ is rugged and lightweight.

- Fast, accurate EDM
- 50,000 point onboard storage
- Dual face (2"), and Single face (5") model
- Dual axis compensation
- Convenient and long-lasting Li-ion battery
- Communications: 1 x serial (RS-232C) , Integrated Bluetooth®



	NIKON DTM322+	
	DTM-322+ 2"	DTM-322+ 5"
<b>Accuracy</b> ISO 17123-3	2" (0.6mgon)	5" (1.5mgon)
<b>Distance Measure</b>	Good Condition	
w/ Reflector Sheet	5 m to 100 m	
w/ Single Prism	2,300 m	
<b>Accuracy</b> (Prism/Precise Mode)	±(3+2 ppm x D) mm	

# Theodolites



## Spectra Precision® DET-2

### Full Featured Digital Electronic Theodolite

The DET-2 is a rugged, cost-effective theodolite designed to give accurate angle measurements.

- Dual, large liquid crystal display
- Optical plummet
- Built-in reticle illuminator and LCD back-lighting
- Vertical axis compensation



SPECTRA THEODOLITE	
DET-2	
Accuracy DIN 18723	2"
Tilt Sensor	Automatic Compensation, ±3' Range
Min. Digital Reading	1" or 5"
Magnification	30x
Field of View	1° 30'

## Nikon™ NE100 Series

### Accurate, Affordable Theodolites

Designed for general construction and survey applications, Nikon NE-100 Series electronic digital theodolites give you accurate measurements in an affordable, easy-to-use platform.

- Ergonomic keypad with one-touch functions
- Large, backlit LCD display
- Built-in reticle illuminator and backlit LCD
- Water-resistant



NIKON NE100 SERIES			
	NE-100	NE-101	NE-103
Accuracy DIN 18723	10" (3.0mgon)	7" (2.0mgon)	5" (1.0mgon)
Reading System	Photoelectric Incremental Encoder		
Min. Digital Reading	10/20" (2/5 mgon)	5/10" (1/2 mgon)	1"
Magnification	30x		
Field of View	1° 20' (2.3 m @ 100 m)		

# Software

## Survey Pro

- Complete Mechanical Instrument Support
- All data collection features
- Basic point stakeout
- Basic COGO including Inverses, Intersections, Manual Traverse, Area and much more
- Basic Curve Solutions
- All the fundamental features required to properly manage a survey job



## Survey Office

- Complete Mechanical InstruEasy data management
- Fast and powerful processing
- Quality assurance
- Complete survey project control





# Autolevels



## Brighter, Sharper Image

Nikon automatic levels are designed for a variety of elevation control and alignment tasks including general building construction, cut and fill measurements, area leveling, and landscaping.

- Choice of magnetic or air-dampened automatic compensators
- Double-sided, continuous horizontal tangent drives
- Stadia lines for simple distance measurement
- Convenient horizontal angle measurement
- Built in bubble mirror and optical sighting alignment
- Metal housing increases durability
- Choice of water resistant or waterproof construction

## Nikon™ AE/AS Series

Nikon AS/AE Series auto levels feature waterproof, nitrogen-filled, high-power telescopes that help you make precise measurements even in the wettest conditions.

The AE/AS series feature a unique automatic air-dampened compensator to prevent magnetic interference, and an endless horizontal fine drive to ensure smooth, precise pointing and angular measurement.



- Compact and lightweight
- Waterproof construction
- Automatic air-dampened compensator
- Standard optical sight lens
- Powerful telescopes with improved minimum focusing

## Nikon™ AX/AC/AP Series

Easy to set up and use. Horizontal tangent knobs with an unlimited range ensure smooth, precise pointing and angular measurement, and you can operate them with either hand.



- Compact and lightweight
- Water-resistant construction
- Magnetic-dampened automatic compensator
- Horizontal tangent knobs with unlimited range
- Smooth, precise pointing and angular measurement
- Detachable eyepiece lens

	AIR DAMPENED			
	AE-7	AE-7C	AS-2	AS-2C
<b>Magnification</b>	30x	30x	34x	34x
<b>Accuracy</b> (1km double run leveling)	± 1.0 mm	± 1.0 mm	± 0.8 mm	± 0.8 mm
<b>Stadia Ratio</b>	1:100	1:100	1:100	1:100
<b>Minimum Focusing Distance</b>	0.3 m	0.3 m	1.0 m	1.0 m

	MAGNETIC-DAMPENED		
	AX-2S	AC-2S	AP-8
<b>Magnification</b>	20x	24x	28x
<b>Accuracy</b> (1km double run leveling)	± 2.5 mm	± 2.0 mm	± 1.5 mm
<b>Stadia Ratio</b>	1:100	1:100	1:100
<b>Minimum Focusing Distance</b>	0.75 m	0.75 m	0.75 m

# Digital Levels



## Affordable Technology with Powerful Functionality

The Spectra Precision® FOCUS DL-15 digital level is a new, very affordable, digital level delivering simplicity, ease-of-use and versatile onboard software to provide consistent precision, performance and productivity.

Easy to learn and use, instantly productive, the FOCUS DL-15 provides consistent measurement precision. It eliminates reading and recording errors and reduces operator eye fatigue.



## Focus® DL 15

### Instantly Productive Digital Level

The FOCUS DL-15 digital level provides consistent height measurement precision through electronic reading of a bar code staff to an accuracy of 1.5mm per 1 km double leveling run. Featuring internal data storage and a distance measurement range of 100m, the Spectra Precision digital level is affordable, versatile, and easy to use, an ideal choice for value.

- Electronic reading provides consistent measurement precision
- Measure and record quickly with a single key press
- Onboard measurement software for common leveling tasks including height determination, calculation of elevations, height differences and Cut and Fill Stakeout
- 16 MB of internal data storage and easy transfer mini-USB



### Powerful Onboard Software Functions

- Easy to learn and use, instantly productive, the FOCUS DL-15 provides consistent measurement precision. It eliminates reading and recording errors and reduces operator eye fatigue.
- Use on a wide range and variety of tasks requiring precise height determination. It enables the user to initiate a measurement and record the data at the push of a button.
- The FOCUS DL-15 contains measurement routines for common leveling tasks including height determination, calculation of elevations, height differences and Cut and Fill Stakeout.
- Simple data transfer from the FOCUS DL-15 via USB cable.

DIGITAL LEVEL	
DL-15	
Accuracy, DIN 18723	1.5 mm (electronic); 2.0m (optical)
Measurement Range	100m
Resolution	Height Measurement: 1mm / 0.1mm Distance Measurement: 0.01m / 0.001m
Magnification	32x



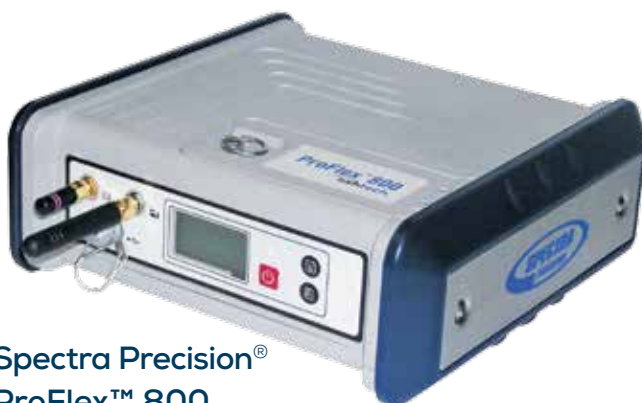
# GNSS



## Powerful GNSS Solutions

Spectra Precision GNSS receivers offer fast and reliable positioning solutions that meet a wide range capabilities. Maximize value with the technology that enables surveyors to increase accuracy, efficiency and productivity.

The SP80, SP60, and ProFlex 800 use the unique Z-Blade technology to track and process all available GNSS signals, to provide the most reliable measurements and the highest possible accuracies in challenging environments.



## Spectra Precision® ProFlex™ 800

### Ultra-Rugged, Highly Integrated Receiver System

The ProFlex™ 800 GNSS system is a powerful GNSS positioning solution offering outstanding RTK performance. ProFlex 800 with Z-Blade technology is a perfect back-pack rover or reference station solution for precise land surveying. Its innovative design makes it ideal for onboard system integration – it can be mounted easily on a machine or vehicle for land or sea operations.

- Z-Blade GNSS-centric technology
- Fast and reliable RTK fix
- Ultra rugged weatherproof design
- Built-in communication features
- Embedded Web server
- Flexible GNSS receiver for multiple applications



## Spectra Precision® SP60

### Extremely Scalable & Versatile GNSS Receiver

The Spectra Precision SP60 offers a high level of flexibility to cover any demand from GIS all the way up to sophisticated RTK and Trimble RTX™ capable solutions.

Combining the unique all-signals tracking and processing Z-Blade GNSS-centric technology and L-band capability for satellite-delivered Trimble RTX correction services, the SP60 receiver provides the most reliable measurements and the highest possible accuracy.

- Extended survey scalability
- 240-channel 6G ASIC
- Z-Blade GNSS-centric technology
- 240-channel 6G ASI
- Long Range Bluetooth
- Anti-theft protection

## Spectra Precision® SP80

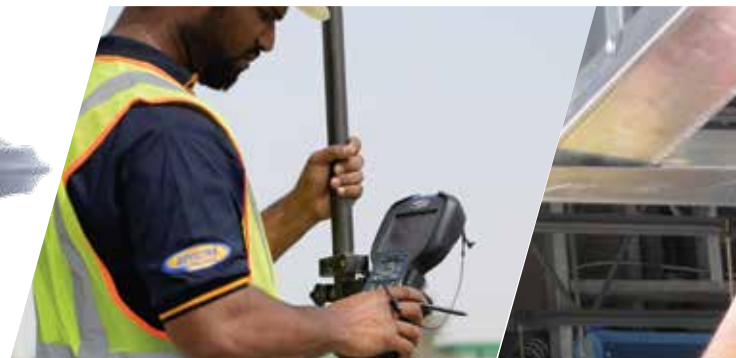
### Powerful, Rugged and Easy-to-Use Receiver

The SP80 offers the best communications and connectivity capabilities available today including SMS and email alerts and anti-theft protection. The ergonomic design and unlimited operating time make the SP80 an extremely versatile and complete solution.

- Patented Z-Blade technology
- 240-channel 6G ASIC
- Built-in WiFi communication
- Hot-swappable batteries
- Internal TRx UHF radio
- 3.5G cellular modem
- SMS and e-mail alerts
- Anti-theft technology
- Backup RTK
- RTK Bridge



# GIS Mobile Mapping & Data Collectors



## Spectra Precision® MM300

### High-Accuracy Mobile Mapper

- Accuracy on many mobile devices
- Compatible with Android
- Straight forward integration with any GIS application
- Scalable from mapping grade to full RTK accuracy
- Compact, light weight and configuration-free GNSS receiver
- Space control application for all required GNSS settings

## Spectra Precision® T41

### Compact Data Collector

- Rugged design with 4.3" display protected by Gorilla® Glass
- Windows Embedded Handheld 6.5 OS
- 8 megapixel camera with dual LED flash
- Bluetooth, WiFi and 3.75G cellular connectivity
- 1 GHz CPU with 512MB RAM, 16GB Flash storage
- Full-Day battery life



## Spectra Precision® MM120

### High-Accuracy Mobile Mapper

- Sub-meter real time accuracy modes
- Integrated communications
- Flexible and powerful platform
- Ruggedized for professional use
- Very lightweight and compact design



## Spectra Precision® Ranger™

### Large Screen Data Collector

- Large, bright, sunlight- readable color VGA screen
- Meets MIL-STD-810G standards
- IP67 rating
- SDHC card slot and USB connections
- 30+ hour rechargeable battery
- Windows Mobile 6.5
- Integrated Bluetooth, Wi-Fi, Compass and GPS



## Spectra Precision® MM50

### New Generation GIS Data Collector

The MM50 is a complete Field and Office mapping solution, running on Android which offers state of the art smartphone capabilities combined with rugged professional quality and improved GNSS performance.

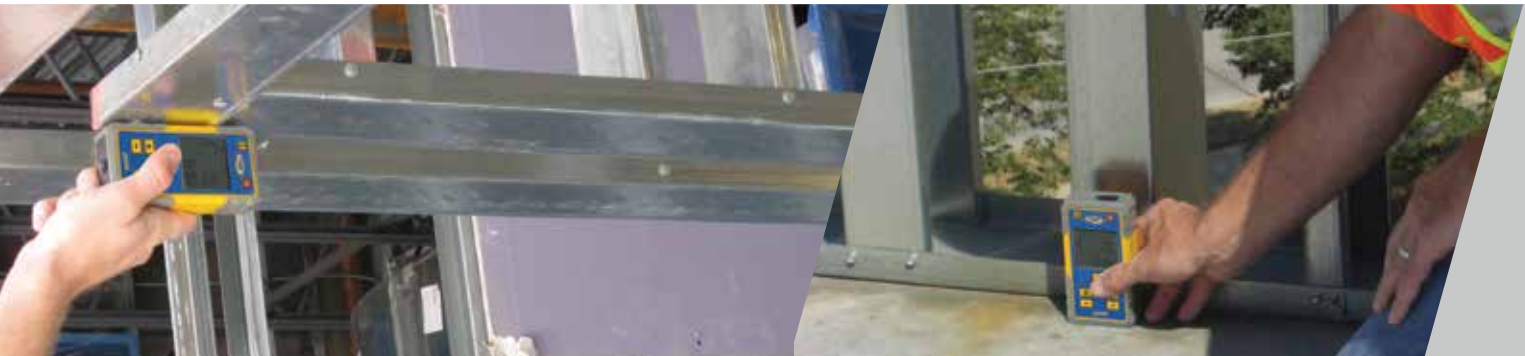


The Mobile Mapper MM50 receiver is slim, highly rugged and very powerful (1.2 GHz quad core processor, 16GB memory and 5.3" display) and also offers GNSS accurate positioning (GPS + GLO or GPS + Beidou) as well as post processing.

- Compact and lightweight
- Wi-Fi only and 4G versions
- Enhanced GNSS with postprocessing
- Strong, waterproof casing - IP67
- Google Mobile Services



# Measuring Tools



## Spectra Precision® QM55

- Rugged, designed to withstand drops up to 1.5m – reduces downtime
- 50m measuring range– measure in difficult to reach areas
- Accuracy of  $\pm 1.5$  mm over the entire range – reduces errors
- Simple area and volume functions
- Pythagoras functions – provides indirect height or width for inaccessible areas
- Long battery life – over 5000 measurements



## Spectra Precision® QM75

- Rugged, designed to withstand drops up to 1.5 m – reduces downtime
- 70m measuring range– measure in difficult to reach areas
- Accuracy of  $\pm 1.5$  mm over the entire range–reduces errors
- Simple one button operation
- Versatile – use both indoor and outdoor
- Long battery life – 8000 measurements



## Spectra Precision® QM95

- Rugged, designed to withstand drops up to 1.5 m – reduces downtime
- 50m measuring range– measure in difficult to reach areas
- Accuracy of  $\pm 1.5$  mm over the entire range–reduces errors
- Simple area and volume functions
- Pythagoras functions – provides indirect height or width for inaccessible areas
- Long battery life – over 5000 measurements



## ST-312M

### 1M Measuring Wheel

Lightweight, compact plastic wheel is perfect for estimates. Comfortable rubber grip handle.

- Counter with reset switch reads up to 9,999 m
- Aluminum 3-section telescoping handle with clamps for quick release and collapse of handle for easy storage



## ST-204M

### 10cm Dual Measuring Wheel

Lightweight materials and quality construction makes the ST-204M the perfect choice for the construction site.

- Counter with reset switch measures m/cm
- Three-section aluminum telescopic handle with quick clamps for easy storage
- Two wide, precision molded tires provide accurate measurements on any smooth surface



## Fiberglass Tapes

- Durable with non-woven pvc-coated fiberglass
- Waterproof
- Easy to rewind with fast design (3:1 gear ratio), with crank handle
- Tape width is 12.7mm



	FIBERGLASS TAPES		
	ST-Y30M	ST-Y50M	ST-Y100M
Length	30 m	50 m	100 m
Scale UOM	m, cm, mm	m, cm, mm	m, cm, mm
Type	Dual-sided	Dual-sided	Dual-sided

# Accessories



## Precise Single Tilting Prisms

- Precision glass up to 2 arc seconds with 0/-30mm offset tilting prism assembly
- Prism canister molded from durable lightweight polycarbonate, ST-2010M has a metal yoke with polycarbonate target. ST-1010 has an aluminum target and metal yoke.

	TILTING PRISMS	
	ST-1010	ST-2010M
Offset	0/-30 mm	0/-30 mm
Holder	Metal	Metal
Target	Metal, Tilting	Polycarbonate, 360° rotation
Mounting Type	5/8-11 Bayonet	5/8-11 Bayonet

## GNSS Poles, Carbon Fiber

- Lightweight telescoping carbon fiber pole
- Snap-loc for pole with compression lock
- On-board 40-minute, adjustable circular vial

	GNSS POLES		
	ST-GLS22	ST-GLS25	ST-GLS26
Length	2.0 m Fixed	2.5 m, Adj.	1.8 m, 2.0 m
Material	Carbon Fiber	Carbon Fiber / Aluminum	Carbon Fiber
Locking Type	5/8-11 Screw	5/8-11 Screw	Compression
Wgt	1.5kg	1.5kg	1.5kg
Sections	2	2	2

## ST-CLS22

### Range/Prism Pole Bipod

- Side entry head with clamp for quick and easy pole setup
- Unique locking system provides non-slip quick clamping
- Thumb release style allows easy adjustments
- Fits 25mm-38mm diameter poles
- Opens to 182cm, Closes to 108cm

## 58128001-HH

### Precise 360° Prism

- Constant  $\pm 2$  mm
- 360° robotic
- Includes height adapter

## Prism Poles, Aluminum

- Adjustable tip with 5/8-11 adapter for prism mounting
- Lightweight aluminum prism pole
- Easily visible precise 40-minute level vial
- Anodized dual-graduation marks

	PRISM POLES			
	ST-4208-TMA	ST-4215-TMA	ST-4708-TMA	ST-4715-TMA
Length	2.5 m	4.6 m	2.5 m	4.6 m
Material	Aluminum	Aluminum	Aluminum	Aluminum
Compression	Compression	Compression	Twist-Lock	Twist-Lock
Wgt	0.95 kg	1.72 kg	0.95 kg	1.72 kg
Sections	2	4	2	4

ST-4708-TMA

ST-GLS26

# Accessories

## Quick Release Pole Clamps

Easily clamps to pole with special design to prevent overtightening the pole clamp screw. Compatible with many popular quick-release cradles to hold data controllers.

- Clamping feature is limited to prevent overtightening on pole
- Ideal for RTK and GNSS surveys requiring a pole and a data collector.
- Made of anodized aluminum for durability and performance.



### QUICK RELEASE POLE CLAMPS

	ST-TC-3	ST-TC-5
<b>Cradle Connection</b>	Quick-Release	Quick-Release
<b>Fits Pole Size</b>	32mm	32mm
<b>Pole Locking</b>	Quick clamp	Quick clamp
<b>Features</b>	Vial and Compass	

## Quick Release Cradles

- Easily secures data collector/controller with anti-crush quick release design that locks cradle when tightened
- Plugs directly into quick-release pole clamps
- Durable anodized aluminum design



### QUICK RELEASE CRADLES

	ST-TC-8-5	ST-TC-8-6
<b>Designed For Model</b>	Recon	TSC3
<b>Plug Type</b>	Quick-Release	Quick-Release
<b>Cradle Lock</b>	Anti-Crush Twist Lock	Anti-Crush Twist Lock

## Tribrach, with Optical Plummet

- Smooth locking mechanism with secure motion foot screws
- Precise alignment of support cavity to the base plate assures accurate centering of instrument
- Durable to endure most weather conditions



### TRIBRACH

	ST-AJ12-D	2152-05
<b>Plummet Type</b>	Optical	Optical, Trimble
<b>Focus</b>	0.3 -15m	0.3 -15m

## Tribrach, Laser Plummet

- Bright 650-nm focused laser dot
- Circular vial w/ 8-minute sensitivity
- Standard three-prong forced centering with center lines
- Included is a standard 3 volt CR2 lithium battery



### TRIBRACH

	ST-AJ12-L	2153-02
<b>Plummet Type</b>	Focused Laser Dot	Focused Laser Dot
<b>Laser Type</b>	650nm	650nm

## Tribrach Adapters

- Anodized aluminum studs
- Fits all tribrachs



### TRIBRACH ADAPTER

	ST-AL2	ST-AL3	ST-AL4
<b>Adapter Type</b>	Fixed	Friction, Rotating	Zeiss/Wild, Adjustable
<b>Rotating</b>		Yes	Yes
<b>Mounting Studs</b>	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
<b>Mounting</b>	5/8-11	5/8-11	5/8-11



# Accessories

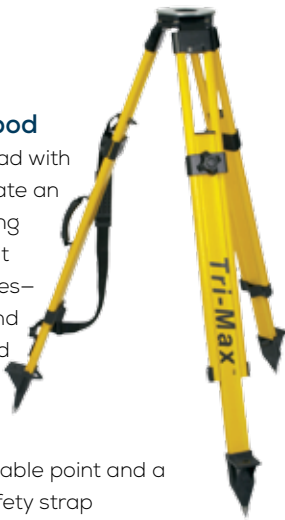


## Trimble Tri-Max

### Heavy-Duty Fiberglass Tripod

The Tri-Max features a 168mm head with large center hole (67mm) to facilitate an easy set-up over a point. A retaining system—which prevents leg kick out and accidental falls on slick surfaces—is stored on the inside of the leg and can be left in place when the tripod is not in use.

- Handle equipment up to 30 kg
- Foot is equipped with a replaceable point and a retention loop for use with a safety strap
- Extended height: 1.8m



## Heavy-Duty Stability

Dual clamp including wing screws and screw clamp lock.

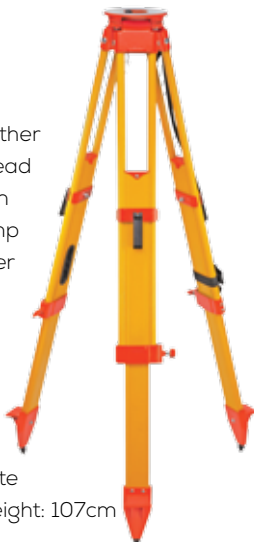


## ST-FG20-MAX

### Heavy-Duty Fiberglass Tripod

The ST-FG20 provides stability and weather resistance with large round aluminum head and leg hinges. Double banded extension legs and large positive locking quick clamp with wing screw for extra stability. Powder coated wear-resistant metal hardware.

- Special engineered plastic shoe with hardened steel replaceable shoe points
- Heavy-duty poly-webbing shoulder strap for ease of carrying to the job site
- Extended height: 183cm; collapsed height: 107cm



## ST-FGHD20

### Fiberglass Heavy Duty Tripod

The ST-FGHD20 is the best value heavy duty fiberglass tripod on the market. Double banded extension legs and large positive locking quick clamp add extra stability. Large aluminum head and leg hinges provide stable mounting base. Powder coated wear-resistant metal hardware.

- Fiberglass shoe with hardened steel replaceable shoe points
- Heavy-duty poly-webbing shoulder strap for ease of carrying to the job site
- Extended height: 183cm; collapsed height: 107cm



## ST-WDF20

### Wood/Fiberglass Heavy Duty Tripod

Combination of hardwood legs with fiberglass dowels the ST-WDF20 provides stability and weather resistance. Double banded extension legs and large positive locking quick clamp add extra stability. Powder coated wear-resistant metal hardware.

- Aluminum shoe with hardened steel replaceable shoe points
- Heavy-duty poly-webbing shoulder strap for ease of carrying to the job site
- Extended height: 183cm; collapsed height: 107cm



## ST-WDW20

### Wood Heavy Duty Tripod

The ST-WDW20 is made of high quality hardwood with wide-frame extension legs and 1" diameter dowels. Large aluminum head and leg hinges provide stable mounting base. Wing screw style clamp with die cast aluminum hardware for maximum stability.

- Wear-resistant with treated finish and powder coated metal hardware
- Aluminum shoe with hardened steel replaceable shoe points
- Plastic head cap for protection, heavy-duty poly-webbing shoulder strap
- Extended height: 183cm; collapsed height: 107cm



# Accessories

## ST-ALQC20

### Aluminum Tripod

The ST-ALQC20 is a lightweight, aluminum tripod with positive locking quick clamp style clamps and individually tightened hinge screws. Designed with aluminum head, hinges, clamps and shoe castings with replaceable shoe points.

- Powder coated castings for durability and wear-resistance
- Heavy-duty poly-webbing shoulder strap
- Extended height: 165cm; collapsed height: 99cm



## ST-ALQR20ELAZ

### Heavy Duty Elevator Tripod

This heavy duty, aluminum tripod features positive locking quick clamp style clamps.

- Adjustable center column with height adjustment range of 31cm and metal gear & rack system for smooth continuous motion
- Special inner column provides additional 31cm height adjustment.
- Extended: 296cm; collapsed: 121cm



## ST-ALQR20

### Heavy Duty Aluminum Tripod

The ST-ALQR20 is made with heavy gauge aluminum with added stability of double banded legs. Large aluminum head and leg hinges provide stable mounting base. Positive locking quick clamps with individually tightened hinge screws.

- Powder coated wear-resistant metal hardware
- Aluminum shoe with hardened steel replaceable shoe points
- Heavy-duty poly-webbing shoulder strap
- Extended height: 163cm; collapsed height: 102cm



## ST-FGC20ELAZ

### Composite Elevator Tripod

This fiberglass tripod features positive locking quick clamp and double banded extension legs.

- Adjustable center column with height adjustment range of 51cm and metal gear & rack system with inner adjustment column for additional 66cm
- Extended: 303cm; collapsed: 125cm



## ST-MCT

### Machine Control Tripod

The ST-MCT provides stability on any terrain. Heavy duty, aluminum tripod built specifically for machine control applications. Adjustable center column with height adjustment range of 43cm and metal gear & rack system for smooth continuous motion. Pointed feet and locking knobs stabilize tripod on any terrain.

- 5/8-11 mounting thread adapter on top of column can be easily removed to attach to base of your instrument
- Extended height: 3.4m; collapsed height: 1.8m



## Fiberglass Leveling Staffs/Rods

- Non-conductive lightweight telescoping fiberglass
- Easy-to-read graduations and measuring scale on the backside
- Includes carrying case

	FIBERGLASS STAFFS	
	ST-905-M	ST-907-M
Length	5m	7m
Graduations	"E", mm (black)	"E", mm (black)
Sections	4	5



## Aluminum Leveling Staffs/Rods

- Lightweight and durable telescoping aluminum leveling rods with carrying case
- Easy-to-read graduations and measuring scale on the backside

	ALUMINUM STAFFS	
	ST-804-M	ST-805-M
Length	4m	5m
Graduations	"E", mm	"E", mm
Sections	4	5



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