

Estación total robótica

GT-1200/GT-600



Rendimiento superior y precisión
para todas las aplicaciones topográficas
y de construcción

Lo último en estaciones totales

GT-1200/GT-600

Con la GT-1200/GT-600, obtiene la eficiencia de un sistema robótico de operador único, la potencia de las mediciones sin reflector de rango largo y la versatilidad del Hybrid Positioning™, todo integrado en los modelos GT-1200 de 1", 2" o 3" o los modelos GT-600 de 2", 3" o 5".

Extremadamente potente

El control de motor inteligente ultrasónico mejorado proporciona un funcionamiento más suave y un menor desgaste. Idónea para aplicaciones topográficas, de construcción vertical o de guiado de maquinaria, la solución se ha diseñado para estacar o replantear más puntos en menos tiempo, incluso en condiciones adversas.

Extremadamente precisa

El seguimiento mejorado de prisma UltraTrac™ para entornos de trabajo complejos utiliza la detección óptica combinada con el control de motor ultrasónico de alta velocidad. Tanto si se trabaja a distancia o de cerca, el instrumento mantiene el bloqueo del prisma, con lo que aumenta la productividad en cualquier entorno.

Extremadamente productiva

Combine y controle acelerando la productividad con nuestras soluciones híbridas que utilizan tanto GNSS como robótica para poder captar la toma, independientemente de la cubierta arbórea, la pérdida de línea de visión o los puntos de difícil acceso. Disfrute de un nivel superior de rendimiento para afrontar cualquier proyecto en menos tiempo.

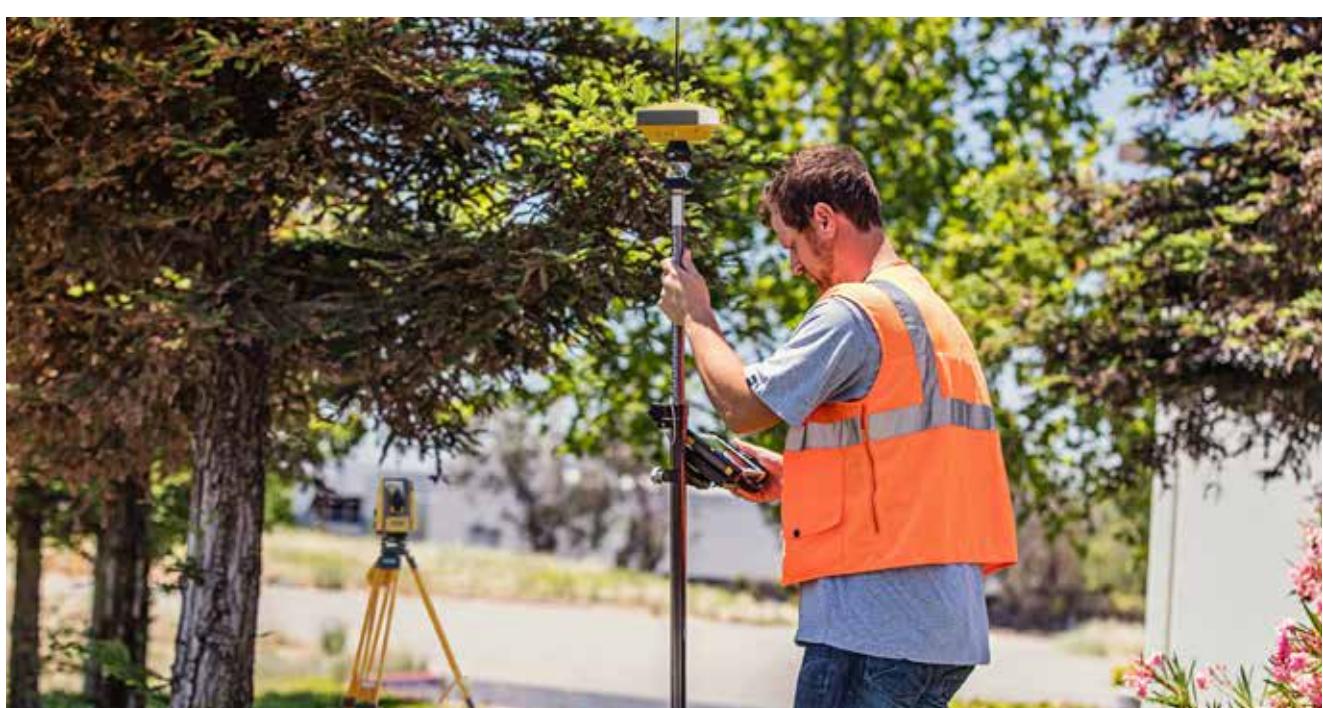
Tasas de actualización de 10 Hz para un estacado más rápido y eficiente

Velocidad de giro de 180°/s para una productividad excepcional

Un 30% más pequeña y ligera que cualquiera de los instrumentos robóticos de la serie Topcon

Mantenga la productividad y la confianza con la tecnología de bloqueo de prisma UltraTrac™

GNSS híbrido preparado para que pueda gestionar cualquier zona de trabajo





La rentabilidad de su inversión

Un contratista de ingeniería ahorró más de 200 000 \$ en mano de obra replanteando más de 128 000 puntos para manguitos e inserciones durante un proyecto de construcción múltiple con 109 plantas. Caso práctico HPS Mechanical

— < La conclusión final es que un equipo dotado de una estación robótica total puede ser cinco veces más rápido que un equipo provisto únicamente de un conjunto de planos y una cinta métrica.

Estudio MCAA



Días de trabajo convertidos en flujos de trabajo

Acorte distancias entre los trabajadores de campo y el personal de oficinas con los servicios basados en la nube MAGNET® Enterprise, más rápidos y eficaces.

- Garantice la conectividad de todas las zonas de trabajo activas, así como la maquinaria pesada, con el Sitelink3D™.
- Elimine los silos de datos y fomente la colaboración entre el personal de oficinas y los gestores.
- Distribución instantánea de archivos tanto con Autodesk® AutoCAD Civil 3D como con Bentley MicroStation.



ACCELERATE PRODUCTIVITY



GT-1200



FC-6000 with MAGNET Field



HiPer VR



MAGNET Office



Estación total robótica GT-1200/GT-600

- Tasas de actualización de 10 Hz al ordenador de campo FC-6000 para un estacado más eficiente.
- Motores ultrasónicos de accionamiento directo con una velocidad de giro de 180° para una productividad excepcional.
- Un 30% más pequeña y ligera que cualquiera de los instrumentos robóticos de la serie Topcon.
- Optimice la productividad combinando la GT-1200/GT-600, el FC-6000, y el software MAGNET con un receptor de la serie HiPer.



Controladora de campo FC-6000

- Mayor velocidad de procesamiento para conjuntos de datos grandes y pequeños, con gráficos mejorados.
- LongLink™ Bluetooth proporciona un rango dos veces mayor que el Bluetooth de clase 1.
- Batería de larga duración, intercambiable en caliente y batería interna para un tiempo de ejecución adicional.
- Teclado externo opcional y estación de acoplamiento que mejoran adicionalmente la productividad.



Receptor HiPer VR

- Rastrea automáticamente la señal de cada constelación de satélites, ahora y en el futuro.
- Soporta los entornos más rigurosos con el robusto diseño IP67.
- Factor de forma compacta ideal para Millimeter GPS y posicionamiento híbrido.
- Capture mediciones de campo desniveladas fuera de plomada en hasta 15°.



Paquete de software MAGNET

- Agilice las rutinas más utilizadas y garantice una conexión de datos rápida y sencilla entre el campo y la oficina.
- Aplicaciones más rápidas y personalizables para el procesamiento, dibujos terminados y construcción 3D.
- Integre la estación total robótica y el GNSS con una mayor velocidad y productividad.
- Software gráfico intuitivo con una curva de aprendizaje baja.
- Microsoft Bing Maps® para fondo de imágenes por satélite.



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IS-3
IMAGING STATION





A New Way to Scan

- Scanning, imaging and robotic total station
- Two digital cameras – wide angle and tele-zoom
- Long range scanning
- Dual communication 2.4 GHz radio and Wi-Fi
- 2,000 m reflectorless measurement

The power, accuracy, and speed of a total station with the auto-scanning capabilities of a laser scanner; Topcon's IS-3 takes material management, as-built design, and structural/environmental monitoring out of the clouds and puts it at your fingertip.

Topcon's IS-3 combines the best of two worlds, advanced imaging and high-accuracy surveying, incorporating real-time field imagery with spatial data. The IS-3's powerful functionality is controlled using Topcon's exclusive ImageMaster™ software that produces "photography with dimension", a revolutionary and cost effective alternative to laser scanning.

Long range scanning

Nobody can provide the combination of laser scanning and robotic surveying like Topcon with the IS-3. With the long non-prism range of up to 2,000 m, the robotic instrument can now scan long distances as well. Mining and monitoring applications can be accomplished with the IS-3.

Remote networking

The IS-3 has WLAN capability and can be controlled remotely. Imagine sitting in the comfort of your office or vehicle and being able to scan, measure, control, and see what the IS-3 is seeing.

Continuous monitoring

With a Wi-Fi connection, image-based monitoring can be done continuously and remotely. Whether done with mounted prisms or reflectorlessly, this monitoring function complements the everyday use function of our robotic surveying. The IS-3 features Bluetooth® and Wi-Fi technology making continuous monitoring easy.



Touch Drive - turn and select a point on screen

Simply touch the screen image to drive the cross hairs where you want. For the highest degree of data accuracy, clarity of image is key. That's why Topcon incorporates telescopic zoom with an LCD. Using the telescope, pinpoint features to be measured or monitored precisely up to 2,000 m away.



Angle Measurement	
Method	Absolute Reading
Minimum Reading	1"/5" (0.1 / 0.5 mgon)
Accuracy	1", 3", 5" (0.3 mgon)
Tilt Correction	Dual Axis
Compensating Range	± 1.8 m
Distance Measurement	
Prism Mode	
1 prism	3,000 m
3 prism	4,000 m
9 prism	5,000 m
Accuracy (Fine)	± (2 mm + 2 ppmxD) m.s.e.
Non-Prism Mode	1.5 m - 250 m
NP Accuracy (Fine)	± (3 mm) m.s.e.
Non-Prism Long Mode	5.0 m - 2,000 m
NP Long Mode Accuracy	± (10 mm + 10 ppmxD) m.s.e.
Imaging	
Cameras (2)	1.3 megapixel
Image speed	1 - 10 fps
Scanning	Max 20 pts/sec
User Interface	
OS	Microsoft Windows® CE.NET 4.2
Processor	Intel® PXA255 400 MHz
Screen	Full Color Touch-screen

Six on-board scanning methods

- Grid Scan by Specified Plane
- Grid Scan by Square
- Grid Scan by Polygon
- Grid Scan by 1-Line
- Grid Scan by All-Around
- Feature Scan (all the above)

How it works

The Topcon IS-3 features dual digital imaging cameras providing a color, real-time image on the touch LCD display.

To define a scan area, simply tap the image display, or for uniform measurement of an area, select the grid feature. The IS-3 “locks” these points to their exact position on the image, even when the instrument is rotated.

Once all points to be measured are chosen, the IS-3 performs a reflectorless measurement of each point.



2,000 m reflectorless EDM

- Long range power means unsurpassed short range performance
- Most powerful reflectorless EDM available
- Pinpoint accuracy with narrow, focused beam



Integrated radio system

- 2.4 GHz Interference free spread spectrum radio + Wi-Fi
- Optional RC-4 long-range radio and QuickLock
- Optional WT-100 long-range Wi-Fi

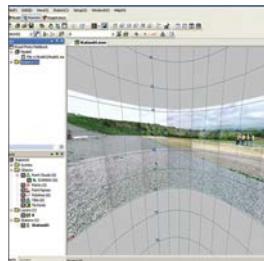


Photo fieldbook

- A 360° panoramic image from any occupation point
- Document the jobsite with photographs referenced on the horizontal and vertical angle grid



For more information:
topconpositioning.com/is-3

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MS AXII SERIES

HIGH ACCURACY
MEASURING STATION





High Accuracy Measuring Station

- Precise angle accuracies 0.5" (MS05AXII) and 1" (MS1AXII)
- Auto-aiming accuracy of 1"
- Remote control through on-line PC
- Exclusive reflector prescan technology
- Enforced durability for long term deformation and monitoring applications

Rapid 2D Monitoring®

In addition to natural hazards, such as harsh weather, soil movement or change of ground water level, engineering structures, such as buildings, dams, tunnels and bridges can always be affected by movement caused by excavation, heavy construction and piling placement. The MS Series provides superior measuring precision and is equipped with environmental protection and functions necessary in monitoring applications, allowing it to be utilized in a high-precision monitoring solution.

Industrial measurement

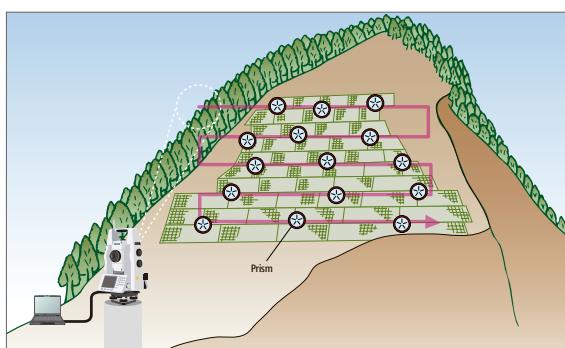
The MS05 AXII, when using reflective sheet targets, can achieve sub-millimeter accuracy allowing for measuring the shape and alignment of large-scale structures such as plants and bridges, as well as precise measurements of ships, railroad cars, and airplanes.

First-order survey

The MS Series offers high-precision angle accuracy (MS05 AXII: 0.5", MS1 AXII: 1") which can be used for a wide range of precise measurements. Equipped with an automatic tracking system, the high-precision robotic measuring station can be configured with a remote control system.

Advanced auto-pointing algorithm for multiple prisms

Incorporating an advanced auto-pointing algorithm*, optimized for monitoring applications, it automatically sights the prism closest to the telescope center regardless of the distance from the instrument. This works even if multiple prisms or other reflective objects are in the field of view, dramatically enhances the reliability in periodic monitoring of predetermined prism locations.



Reflector prescan for monitoring setup

The MS Series automatically searches within the predetermined area to quickly measure the reflectors as initial positions for subsequent routine measurements. This function works in low light or dark conditions where the reflectors cannot be clearly seen by the human eye.



MS05AXII MS1AXII				
Angle Measurement				
Accuracy (ISO 17123-3)	0.5" (0.15 mgon)	1" (0.3 mgon)		
Minimum Reading	0.1" / 0.5" (0.02 / 0.1 mgon)			
Distance Measurement				
Maximum Range				
Non-prism	100 m	400 m		
Reflective Sheet	200 m	200 m		
1 Prism	3,500 m	3,500 m		
Accuracy (ISO 17123-4)				
Non-prism	1 mm + 1 ppm	2 mm + 1 ppm*		
Reflective Sheet	0.5 mm + 1 ppm	1 mm + 1 ppm		
1 Prism	0.8 mm + 1 ppm	1 mm + 1 ppm		
Motors	DC motordrive			
Rotation Speed	85° / second			
Auto-Collimation				
Range				
AP Prism	1.3 m to 1,000 m			
Reflective Sheet	5 m to 50 m			
Accuracy**				
AP Prism	1" (0.3 mgon) (1 mm at 200 m)			
Reflective Sheet	1 mm at 50 m			
* Up to 200 m range. ** Auto-collimation accuracy is verified using the methods specified by ISO 17123-3.				



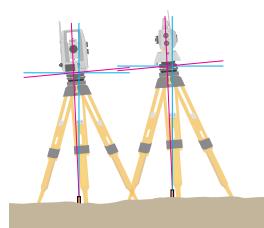
Ultra high-precision distance measurement MS05AXII

Using reflective sheet targets, the MS05 AXII provides sub-millimeter accuracy (0.5 mm + 1 ppm) in a range of up to 200 m. The MS1 AXII is doubled to 400 m with Kodak white side (90% reflective).



Advanced angle calibration

Topcon advanced angle encoder technology with exclusive calibration system provides “best in class” angle accuracy, 0.5” (MS05 AXII) and 1” (MS1 AXII).



Adjusting mechanism for angle measuring

The biaxial level compensation mechanism has a wider adjusting range of $\pm 6'$ which is twice as wide, compared with previous models. This enables highly accurate measuring performance.



Superior auto-pointing accuracy

The auto-pointing accuracy* with the standard prism is 1” (1 mm at 200 m), and 4” (1 mm at 50 m) with a reflective sheet.

* Auto-pointing accuracy is verified using the methods specified by ISO 17123-3.

Kit components

- MS Measuring Station
- 2x Batteries and charger
- Lens cap and hood
- Tool kit
- Plumb bob
- Digital manual
- Vinyl cover
- Carry case and straps



For more information:
topconpositioning.com/ms-series

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