

# TIGO SF

3D coordinate measuring machine  
for the shop floor





# ONE FLOW WITH TIGO SF

In production you are aiming at a constant flow from milling, drilling, threading, and grinding, all the way to final inspection. A smooth flow from A to...T!

TIGO SF is the most accurate measurement tool to include quality assurance seamlessly in your production line. Thanks to its features it is absolutely robust against all the challenges which coordinate measuring machines (CMMs) are faced with on the shop floor.

And the best part of it all: everyone can measure with TIGO SF. The intuitive operating concept opens up the world of metrology to everyone. No matter if you are familiar with measurement tools or if you are in uncharted waters – TIGO SF is for you.

With TIGO SF you are fully equipped to measure your workpieces - easy and efficient, directly on the shop floor.

## Key characteristics

- Revolutionary operating concept for intuitive use
- Best accuracy in its class
- High-Speed-Scanning or touch-trigger measurements with fixed or indexable probe heads
- Extremely robust against dust and dirt, vibrations, humidity and temperature changes in the shop floor
- Fully functional from day one, minimum servicing required
- Minimum footprint, measurement range 500 x 580 x 500mm (X/Y/Z)



# MEASURE THE TIGO SF-WAY

TIGO SF is revolutionizing the way you interact with a measurement tool. With TIGO SF operating a shop floor CMM is more ergonomic, easier to understand and faster than ever.

## Ergonomic Workstation

All interfaces were designed around the idea to create an ergonomic and smooth workflow. The touchscreen is placed on a mount which can be positioned exactly where you need it. An additional keyboard still gives you the flexibility to switch to more conventional ways of operating the CMM. The new ergonomic hand-held Jogbox is the ideal tool for operations demanding freedom and robustness. As an option TIGO SF is available with a standard desk replacing the mount. An easy-to-reach USB port facilitates data exchange.

## Common Symbology

“Easy-to-understand” was on top of the list when developing TIGO SF. Common symbology is one of the keys. Be it the PC-DMIS TOUCH graphical user interface or the Jogbox – the symbols are the same throughout for straightforward operations.

## LED Status Lights

Optional messaging LEDs mounted on the vertical axis allow for the clear view of the machine and program status from any part of your factory floor. It is clearly visible if the part is still being measured or if TIGO SF needs the operator to perform a certain operation.

## Compact Size

TIGO SF is the all-in-one measuring machine for production: In the standard version PC, controller and peripherals such as the touchscreen and the keyboard are all mounted to the same base. Thus, TIGO SF requires minimum space on the shop floor. Compressed air is not needed. Place this CMM anywhere on your shop floor. If circumstances demand a different location it can easily be relocated.

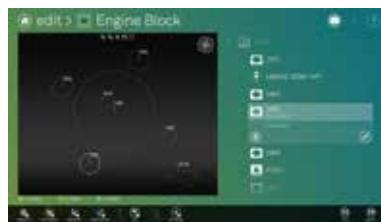
## Scanning and point-to-point

In its standard configuration TIGO SF is equipped with the fixed HP-S-X1 sensor for maximum performance in scanning and point-to-point probing. For enhanced flexibility the automatic indexable HH-A probe head is also compatible with this CMM.





# IN TOUCH WITH TIGO SF



The new PC-DMIS TOUCH software guides you safely through the measuring process with guided workflows. Each step of the process is shown in full-screen mode and is marked with unique color. Graphics of the measured elements appear in the center of the software interface. The icons at the bottom edge of the screen allow you to quickly switch to other functional areas of PC-DMIS TOUCH.



## Measure

With PC-DMIS TOUCH you can check individual characteristics without a measuring program. Automated measuring routines are there to guide you through more complex tasks. Elements that have already been measured can be found in a list or in the graphic display, or a new element can be measured.



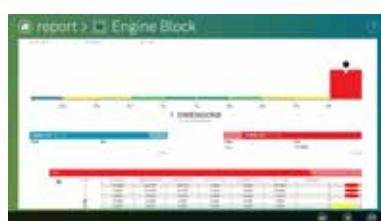
## Report

While the characteristics are measured, you can select whether the respective data appear in the report or not. Access to the report is available with a swipe of the finger to the right. It contains a clear graphic display which tells you at a glance: Is my part in or out of tolerance?



## Upgrade

For more demanding applications the conventional PC-DMIS and QUINDOS versions are available. Still, the unskilled worker on the shop floor is able to execute measurement programs with the intuitive PC-DMIS TOUCH interface.



## Connectivity

For a constant information flow TIGO SF can easily become part of your network – either on a wired or wireless basis. Via your network you can send measuring programs directly to the CMM and receive measurement data from it.





# RIGHT IN THE MIDDLE

With TIGO SF you are able to measure accurately where it matters most in terms of quality: directly in production. TIGO SF brings sophisticated measurement technology to the shop floor.

## Extended temperature range

- Enhanced structural temperature compensation for accurate measurements in a temperature range from 15 to 30° C.
- Individually re-certified scale bars for top measuring reliability and high accuracy even in harsh environments.
- Measuring table made of granite, material known for being thermally-stable.

## Vibrations

- Passive dampers protect the machine from common vibrations on the shop floor.
- Active dampers are available as an option for extra protection.

## Dust and Dirt

- The machine is protected with bellows against contamination on the shop floor.
- An IP54-certified machine base for additional protection against environmental effects is optionally available.

## Automation

- Open access to the measurement range: loading is possible from three sides – be it manual or automated.

## Set-up and Servicing

- As TIGO SF is very compact and does not require compressed air it can be placed anywhere in production, absolutely seamlessly.
- Thanks to its robustness TIGO SF requires minimum servicing.



# TIGO SF AT A GLANCE



Probe changer for HP-S-X1 integrated in the machine frame. Specifically designed covers protect the HP-S-X1 styli from dust and dirt.



High-Speed-Scanning with HP-S-X1 sensor or touch trigger probing with the indexable HH-A.



Touchscreen included in the standard configuration for easy handling .



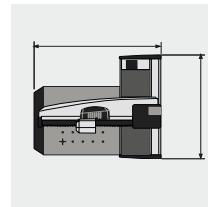
Additional keyboard for conventional ways to interact with the CMM.



Granite wide workplate including a tight net of threaded holes for easy part fixturing.



Open architecture for loading and unloading from three sides.



Reduced footprint requiring only minimal space on the shop floor, compact set-up containing all components of the CMM.



PC and controller integrated in the machine stand.



Flexible mount for ergonomic operations.



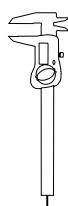
Data transfer via USB port or WiFi connection.



Bellows on the X- and Y-axis protect the machine from dust and dirt.



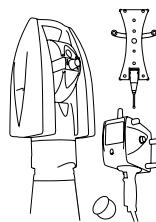
Optional LED lights visualising the status of the measurement process.



PRECISION MEASURING INSTRUMENTS



PORTRABLE MEASURING ARMS



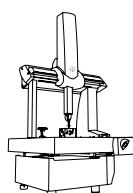
LASER TRACKERS & STATIONS



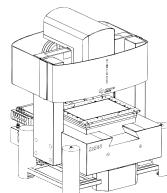
WHITE LIGHT SCANNERS



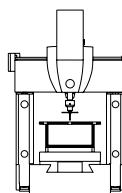
SENSORS



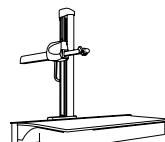
BRIDGE CMMS



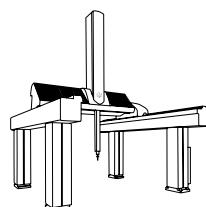
MULTISENSOR & OPTICAL SYSTEMS



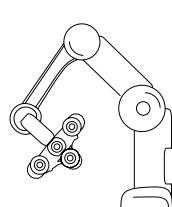
ULTRA HIGH ACCURACY CMMS



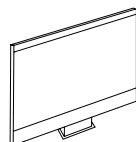
HORIZONTAL ARM CMMS



GANTRY CMMS



AUTOMATED APPLICATIONS



SOFTWARE SOLUTIONS



Hexagon Metrology offers a comprehensive range of products and services for all industrial metrology applications in sectors such as automotive, aerospace, energy and medical. We support our customers with actionable measurement information along the complete life cycle of a product – from development and design to production, assembly and final inspection.

With more than 20 production facilities and 70 Precision Centers for service and demonstrations, and a network of over 100 distribution partners on five continents, we empower our customers to fully control their manufacturing processes, enhancing the quality of products and increasing efficiency in manufacturing plants around the world.

For more information, visit [www.hexagonmetrology.com](http://www.hexagonmetrology.com)

Hexagon is a leading global provider of information technologies that drive productivity and quality across industrial and geospatial applications. Hexagon's solutions integrate sensors, software, domain knowledge and customer workflows into intelligent information ecosystems that deliver actionable information. They are used in a broad range of vital industries.

Hexagon (Nasdaq Stockholm: HEXA B) has more than 15,000 employees in 46 countries and net sales of approximately 2.6bn EUR.

Learn more at [www.hexagon.com](http://www.hexagon.com)

© 2015 Hexagon Metrology. Part of Hexagon

All rights reserved. Due to continuing product development, Hexagon Metrology reserves the right to change product specifications without prior notice.

Printed in Germany. January 2015