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Swift PRO Series

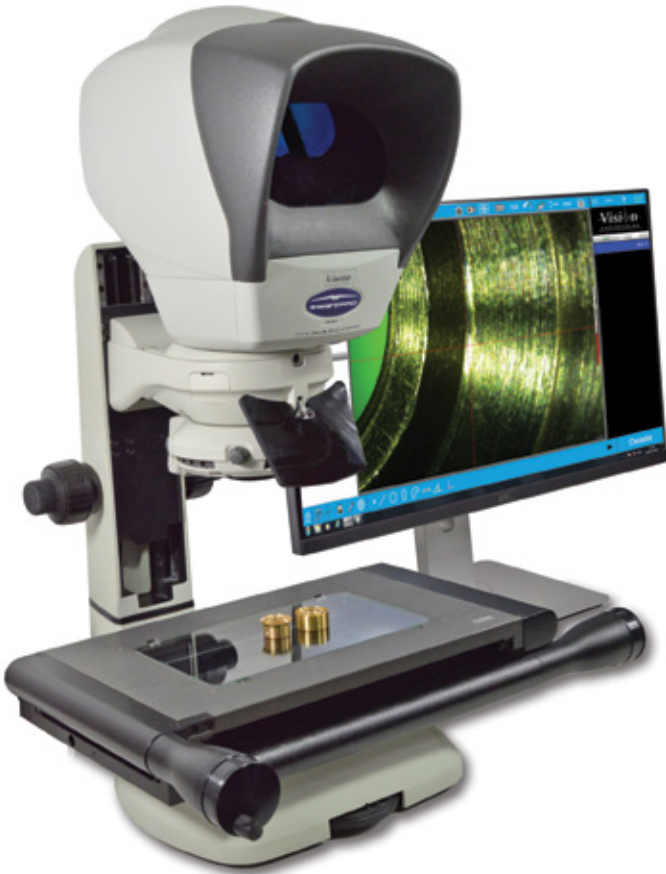
Optical and Video
Measuring Systems



FOCUSED
QUALITY

Simply measure.

The Swift PRO Series includes powerful and easy to use non-contact measurement systems, combining the latest video and optical measurement technologies in a robust, versatile design. Swift PRO Duo is the only video measuring system to incorporate an ergonomic measuring microscope.



Previously difficult-to-view samples can now be measured and inspected on the same system, in the same routine, by the same operator. Swift PRO Duo provides fast and accurate measurement of both routine and complex precision parts.

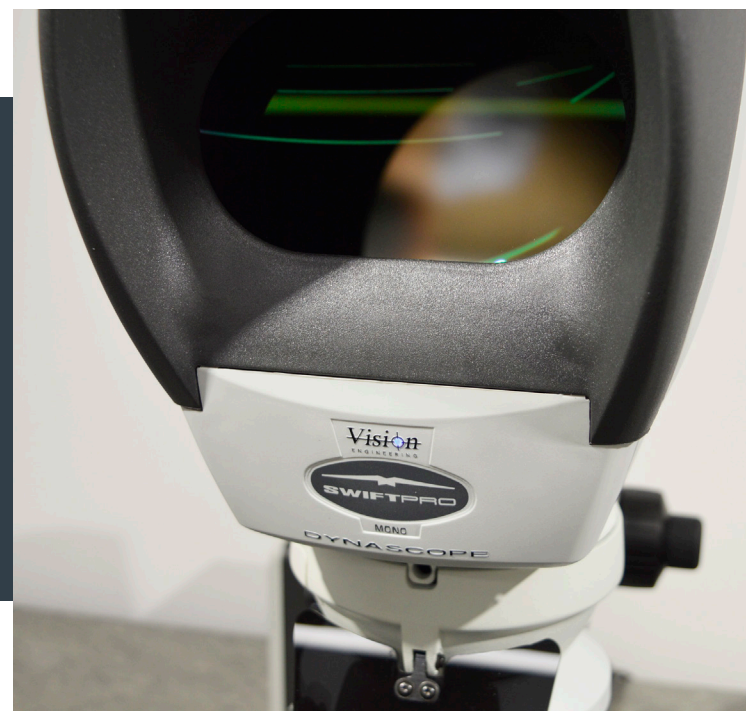
With a rich suite of measurement and reporting features, it is the right measurement tool for a broad range of applications, from electronics and aerospace to automotive, plastics and medical device manufacturing.

- ✓ Enhanced illumination control through software
- ✓ Built in aperture control to sharpen edges on profiles
- ✓ 3-axis measurement ready
- ✓ Available with a 6" x 4" or 8" x 4" stage
- ✓ Quadrant control surface illumination to enhance edge detection

Dynascope® technology in Swift PRO

Swift PRO is the only system available to include the unique and patented eyepiece-less ergonomic measuring microscope.

The **Dynascope** technology allows operators to take accurate measurements whilst wearing prescriptive glasses, safety goggles and contact lenses. Other system benefits include a large field of view and peripheral vision.



Swift PRO Duo

The World's Only Eyepiece-less Video & Optical Measuring System

Combining the ergonomic benefits of Vision Engineering's patented eyepiece-less optical measurement technology with the speed and practicality of video edge detection makes the **Swift PRO Duo one-of-a-kind!**

- ✓ Two measurement systems in one to guarantee the measurement of any feature, regardless of material
- ✓ Take accurate measurements in seconds, with no need for pre-programming
- ✓ Choice of either Metlogix embedded controller or Metlogix M-Series software.
- ✓ Advanced and robust measuring system in a compact size
- ✓ Quick and easy interchangeable lenses starting at 10x magnification
- ✓ Ideal upgrade from an optical comparator / Toolmakers microscope or an existing video measuring system



Swift PRO Cam

Video Measuring System

Swift PRO Cam is an intuitive, easy to use video measurement system. Ideal for fast and accurate measurements of a wide range of critical and precision parts.



- ✓ Built-in HD camera
- ✓ Economical option for video only measurement
- ✓ Advanced Video Edge Detection (VED)
- ✓ Optional Z axis measurement
- ✓ Choice of 2 stage sizes
- ✓ Ideal upgrade from a profile projector or another video measurement system
- ✓ Great investment now with an easy upgrade to a Swift PRO Duo later

Swift PRO Elite

Optical Measuring System

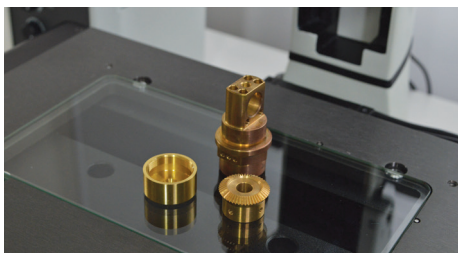
Swift PRO Elite is a tool maker's microscope with the world's only, Dynoscope® technology. Provides accurate measurements of a wide range of precision components, even difficult subjects such as black or transparent plastics.

- ✓ Easy to use with minimal training
- ✓ Accurate measurement of complex parts
- ✓ Available with Heidenhain QC 200 or ND122
- ✓ Ideal upgrade from a toolmakers microscope
- ✓ Patented eyepiece-less technology delivers unrivalled ergonomics



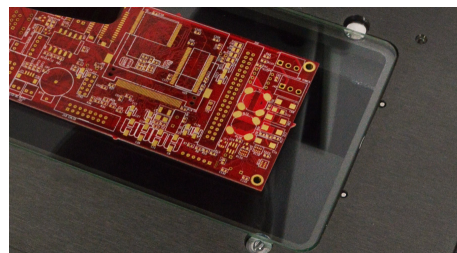
Typical applications

With a rich suite of measurement and reporting features, there is a Swift PRO measurement system ideal for a range of applications — from electronics and aerospace to automotive, plastics and medical device manufacturing.



Precision Engineering

Swift PRO video measurement quickly measures surface profiles of small, critical components while surface features on metal parts can be measured accurately with Swift PRO ergonomic optical head.



Electronics

Printed circuit boards and electronic components can be easily measured with Swift PRO Cam's superior video edge detection capability. You can even use one of the variants with an optical head, for quickly checking defects on the boards.



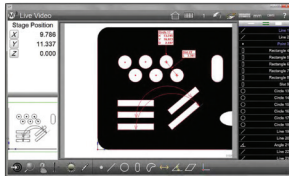
Medical & Plastics

Eliminate the challenge to detect edges and features on clear or black plastic parts due to lack of contrast between the feature and its background with the optical head on the Swift PRO Elite or the Swift PRO Duo. Operators can accurately identify edges with the superb optics technology.

Software and Controller Options

M-series Measuring Software

Renowned M-series software carries out basic to advanced measurement applications with ease and with minimal training. The intuitive user interface appeals to a wide user base, ranging from machine operators to metrologists in the QC lab.



- ✓ Instant measurements when using either profile or surface illumination
- ✓ Programmable light control
- ✓ Easy reporting includes export to excel or a .txt file
- ✓ DXF import/export
- ✓ Thread and wire measurement options

Mx200

Combining a familiar user experience with current touchscreen conventions, the Mx200 readout can quickly be integrated into your process while being accessible to a wide range of users.



Available for both Optical Edge and Crosshair only measurement systems the Mx200 probing options are simple and intuitive. The exclusive EdgeLogic™ feature enables gesture driven control of start and end measurement commands, alleviating the need to interact with the DRO directly. Just cross the same edge twice to start and end measurements!

- ✓ Supports keypad and touchscreen control
- ✓ Intuitive design
- ✓ Optical edge and crosshair probes
- ✓ Export reports as pdf or CSV files

Technical details

	Swift PRO Duo	Swift PRO Cam	Swift PRO Elite
Measurement uncertainty (X, Y)	$U_{95}2D = 5 + (6.5L/1000)\mu\text{m}$. L = length in mm, using controlled conditions with 100x magnification at the standard measuring plane		
Measurement uncertainty (Z)	10 μm , using controlled conditions with 100x magnification		
Ergonomic optical measurement	●	○	●
Video edge detection	●	●	○
2MP (HD) video camera resolution	●	●	○
Magnification options (system total)	10x, 20x, 50x, 100x		
Measuring stage	Precision measuring stage, with factory-set Non-Linear Error Correction (NLECC) calibration as standard		
Measuring Range (X, Y)	6" x 4" and 8" x 4"		
Measuring Range (Z) 3-axis variant only	3.86"		
Height Adjustment	3.94"		
Optional fixed riser block*	4.21" or 1.85"		*factory fitted item, extends height adjustment not measuring range
Encoder Resolution	X = 1 μm Y = 1 μm Z = 0.5 μm		
Maximum Load**	22.04lbs (10kg)		** when evenly distributed
LED Substage Illumination	●	●	●
LED Quadrant Surface Illumination	●	●	●
Illumination Control via Software	●	●	○
Substage iris control	●	●	●
Dimensions (H x W x D)	26.77" x 20.27" x 18.90"	17.72" x 20.27" x 18.90"	26.77" x 20.27" x 18.90"
Optical head weight (unpacked)	8.82lbs (4kg)		
Stage 6" x 4" weight (unpacked)	23.15lbs (10.5kg)		
Stage 8" x 4" weight (unpacked)	29.76lbs (12kg)		
Stand weight (unpacked)	13.23lbs (6kg)		

For more information...

For more information, please contact your Vision Engineering branch, local authorised distributor, or visit our website.

Distributor



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