OGP HOMMEL ITALIA

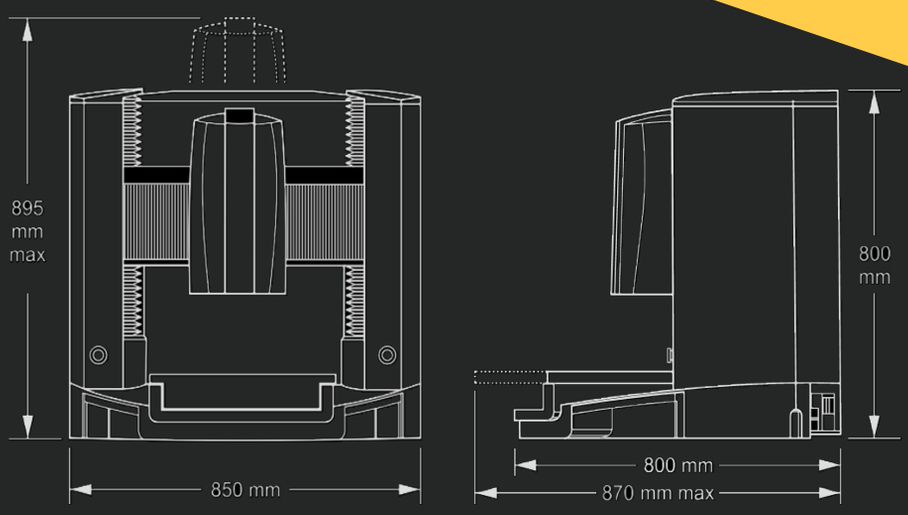
SmartScope Flash 302

- **Designed-in accuracy**
  Patented† “elevating bridge” design eliminates errors common to other designs
- **Precision optics**
  High quality AccuCentric® zoom lens automatically
- **Superb illumination for the best video measurements**
  surface light, and SmartRing™ light illuminate parts from all angles
- **Multisensor versatility**
  Optional touch probe, scanning probe laser, and micro-probe sensors

Multisensor Dimensional
Measuring System that fits on a Benchtop

Axis	Travel (mm)
X axis	300
Y axis	300
Z axis	250

Machine Weight: 160 Kg
Shipping Weight: 340 Kg



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Technical data SmartScope Flash 302

	Standard	Optional
XYZ travel	300 x 300 x 250 mm	
XYZ scale resolution	0.1 µm, with dual Z-axis scales standard	
Drive system	DC servo with 4-axis control (X,Y,Z,zoom); with multifunction handheld controller; dual Z-axis drives	
Worktable	Hardcoat anodized, with fixture holes, removable stage glass, 30 kg recommended max payload	
Rotary axis		Miniature Servo Rotary (MSR), MicroTheta Rotary (MTR)
Optics	AccuCentric® auto-compensating zoom with up to 25 calibrated positions, 1.0x front lens with 64 mm working distance	0.5x, 0.75x, 1.5x, and 2.0x lens attachments; 2.5x and 5.0x high magnification replace- ment lenses; 2.0x and 5.0x laser lenses (for use with or without optional TTL laser), LED autofocus grid projector; TTL laser adapter (includes laser pointer)
FOV size (std optical configuration)	Measured diagonally, 10.1 mm (low mag) to 1.1 mm (high mag)	
Illumination	Patented†† LED numerical aperture matching substage, LED coaxial TTL surface, 8 sector/8 ring SmartRing™ LED (white)	
Camera	High resolution color digital metrology camera	
Image processing	256 level grayscale processing with 10:1 subpixel resolution	
Sensor options (contact OGP for possible combinations of sensors)		Touch probe and change rack, SP25 scanning probe, on-axis TTL laser (with 2.0x laser lens), Feather Probe™
Controller	Windows® based, with up-to-date processor and on board networking/communication ports	
Controller accessory package		24" flat panel LCD monitor, or dual 24" flat panel LCD monitors; keyboard, 3-button mouse (or user supplied)
Software	**QVI Portal, including:** • Portal Navigator • Independent Calibration Engine (ICE) • Multimedia Content Viewer • SmartLink™	**Metrology software:** ZONE3® Express, Prime or Pro; MeasureMind® 3D, Measure-X® **Productivity software:** MeasureFit® Plus, SmartFit® 3D, SmartProfile® **Offline software:** ZONE3, MeasureMind 3D, Measure-X
Power requirements	100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 1000 W	
Rated environment	Temperature 18-22 °C, stable to ±1 °C; 30-80% humidity; vibration <0.001g below 15 Hz	
Operating environment, safe operation	15-30 °C	
XYZ volumetric accuracy		E_3 = (3.8 + 5L/1000) µm[1,2,4,5] (requires QVI 3D metrology software)
XY area accuracy	E_2 = (1.8 + 5L/1000) µm[1,2,3,4]	
Z linear accuracy	E_1 = (3.4 + 5L/1000) µm[1,4]	E = (2.4 + 5L/1000) µm[1,4] (with optional 2.0x replacement lens and grid projector, TTL laser, or TP20 or TP200 touch probe)

1 Patent Number 6,518,996 ††Patent Number 6,161,940

1 Where L = measuring length in mm. Applies to thermally stable system in rated environment. Maximum rate of temperature change: 1 °C/hour. Maximum vertical temperature gradient: 1 °C/meter. All optical accuracy specifications at maximum zoom lens setting. Volumetric accuracy performance requires use of QVI 3D metrology software, such as MeasureMind 3D or ZONE3.

2 With evenly distributed load up to 5 kg. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy.

3 Measured in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface.

4 E Z axis linear, E XY area, and E XYZ volumetric accuracy standards are described in QVI Publication Number 790762. 5On-site verification optional.

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