



Fast, Easy, Accurate, Compact and Powerful

Smart_Projector
State-of-the-art Video Measuring Machine

Smart_Projector

Fast Industrial Video Measuring Machine



"Smart_Projector allows automatic, objective, repeatable, easy and fast dimensional quality check of any part"

Easy and Fast

Smart_Projector by SmartVision is the first and unique instrument designed to perform a **complete and automatic check** of any part easily and fast.

Automatic and Productive

Revolutionary digital evolution of traditional profile projector and micrometer caliper, it allows to **check an unlimited number of quotas per item in just few seconds**, with no need for part alignment, no manual collimation nor focus and without any moving part inside the equipment.

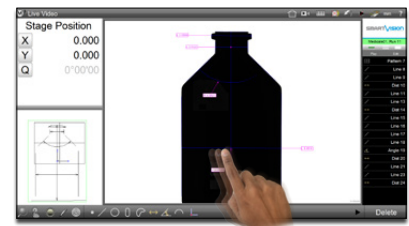
Accurate

Smart_Projector provides objective and repeatable measures and signals a simple « Pass / Fail » semaphore output, with **no contribution nor interpretation by the operator**, ensuring a full automatic gauging and **reporting of all checking activities** in compatible excel files (csv, tsv, txt), prints (or pdf) and image files.

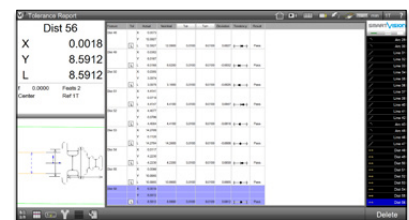
Industrial and Compact

Smart_Projector is a fast, compact, rugged, static, easy to use and easy to program equipment, **designed for harsh environment and heavy duty cycle use.**

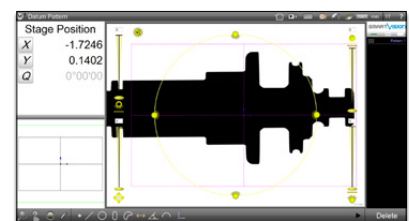
New Generation Software: TOUCH & MEASURE!



- Multi touch-screen software
- Automatic feature recognition



- Automatic data report
- CSV / TSV / TXT / DXF / PDF



- Software programmable light
- Front / Back / Diffused light

Smart Features

Two Smart_Projector in One - Vertical & Horizontal Use

Rugged stainless steel industrial case
Compact static equipment

Industrial high-resolution camera

High performance Bi-Telecentric Optics

Software programmable
Episcopic Light
(4 independent sectors)



Software programmable
Collimated Diascopic Light

Protected measuring chamber
Easy object placement
Customizable loading plate
Rotating Stage for 360° Measurements

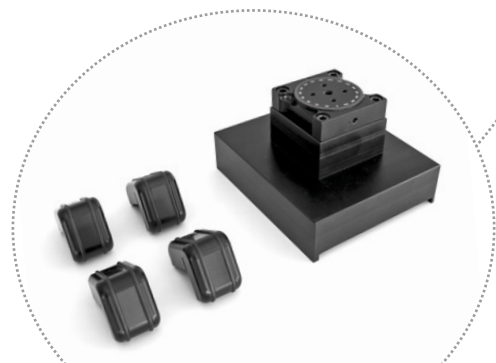
Suitable for the production line
Ready for automation

All-In-One touchscreen PC



- Powerful All-In-One touch screen HD PC
- Intuitive touch screen measurements software
- Easy programs recording with finger gesture
- Automatic feature recognition
- Up to 16.000 features per item

Smart_Horizontal_Adapter_Kit



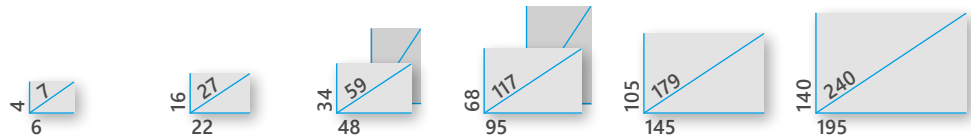
- The Smart_Horizontal_Adapter_Kit includes:
- Smart_Rotating_Stage
 - Four custom-made pins to switch the use of Smart_Projector from the standard Vertical position to Horizontal use.

Large Range of Available Models

Smart_Projector - Configurations & Features



WORKING AREA
DIMENSION (mm)



FoV ³ (mm)	6 x 4	22 x 16	48 x 34	95 x 68	145 x 105	195 x 140
FoV ³ Diagonal (mm)	7	27	59	117	179	240
FoV ³ Area (mm) ²	23.5	352	1632	6460	15225	27300
Diascopic Light ¹	Collimated	Collimated	Collimated	Collimated	Directional ⁶	Directional
Episcopic Light ²	-	-	Yes	Yes	Yes	-
Version	Vertical	Vertical	Ver. / Hor.	Ver. / Hor.	Vertical ⁶	Vertical

*See note (1), (2), (3) and (6) at the back.

Product Highlights

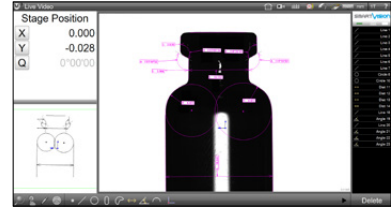
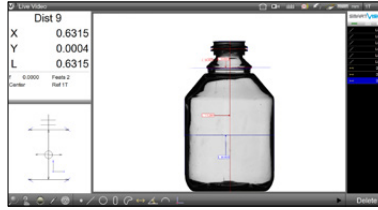
Smart_Projector - Main Benefits

- Specifically suited for massive (production) quality inspection, in-line control, incoming inspection
- Eliminates subjectivity and errors of operator-based gauging
- Increases number of quotas and quality check rate, up to 16000 checking features in a few seconds
- Performs full automatic reporting and SPC (Min, Max, Range, Average, Std Dev, 6 Sigma)
- Designed for in-production massive use
- Plug-and-play, it is ready to use
- Suitable for unskilled operators use
- Flexible investment with a fast Return on Investment
- Reduces time and costs of controls

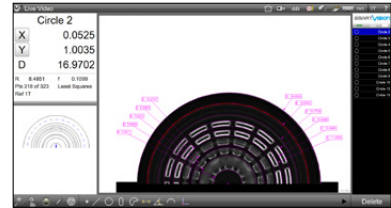
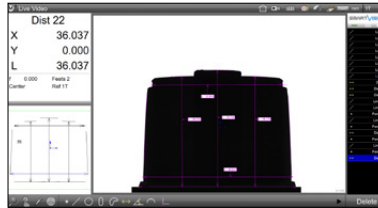
Applications

Quality Control for Industrial Sectors

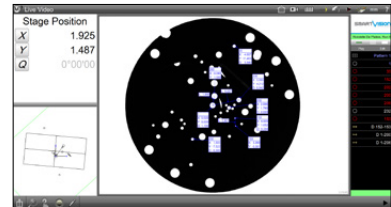
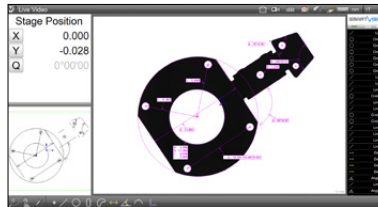
GLASS



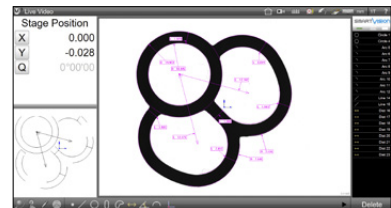
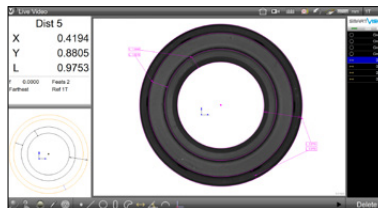
PLASTIC



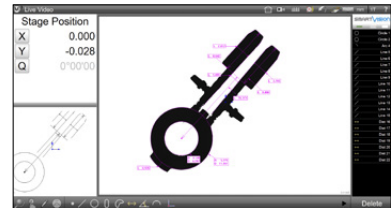
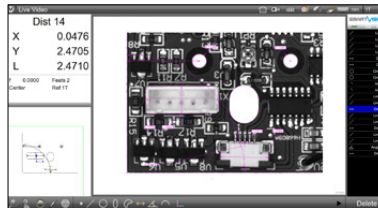
CUTTED



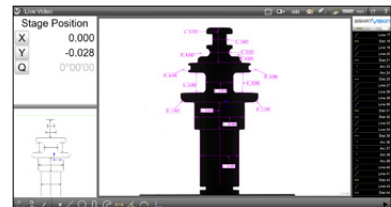
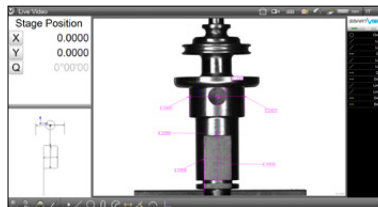
RUBBER



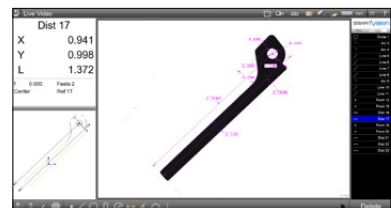
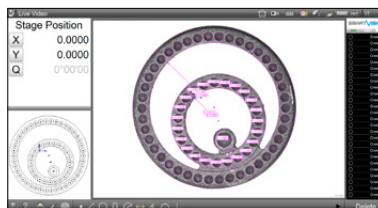
ELECTRONICS



TURNING



MICROMECHANICS



Specifications

Smart_Projector - Fast Industrial Video Measuring Machine

PC Device	Powerful All-In-One touch screen FULL HD PC with Windows 10 PRO 64-bit, monitor resolution 1920x1080					
Light receiving lens	Double telecentric lens					
Field of View ³ (FoV) ³ (mm)	6x4	22x16	48x34	95x68	145x105	195x140
FoV ³ Diagonal (mm)	7	27	59	117	179	240
FoV ³ Area (mm) ²	23.5	352	1632	6460	15225	27300
Measuring Chamber (mm) ⁵	218x125x55	218x125x55	203x200x175	203x230x240	260x330x410	419x450x475
Repeatability accuracy ⁴	±0.1 µm	±0.2 µm	±0.5 µm	±1 µm	±1.5 µm	±2 µm
Measurement accuracy ⁴	±0.5 µm	±1.5 µm	±3 µm	±6 µm	±8 µm	±12 µm
Dimensions (mm)	324x330x490	324x330x490	284x328x873	284x330x1255	335x380x1255	553x510x1813
Weight (kg)	18	18	29	45	45	150
Diascopic Light ¹	Collimated	Collimated	Collimated	Collimated	Directional ⁶	Directional
Episcopic Light ²	-	-	Yes	Yes	Yes	-
Version	Vertical	Vertical	Ver. / Hor.	Ver. / Hor.	Vertical ⁶	Vertical
Operation ambient °C	+10 to +40°C					
Power supply	110-240 Vac 50-60 Hz					
Power consumption	2 A					
Measurement points	16000 features max					
Pattern search	XYθ (accepts random positioning)					
Tolerance	Angle, angularity, area, circumference, concentricity, diameter, flatness, form, length, parallelism, perpendicularity, radius, roundness, runout, straightness, symmetry, true position, width, XY position.					
Statistical Analysis	Ready to connect with SPC software					
CAD export	dxf file with nominal values and tolerance					
CAD import	dxf file for profile match, nominal values and tolerance					
Data Report	csv, tsv, txt					
Print Report	Windows installed Printer (optional pdf), xps					
User account control	Super Visor, Users 1 to 20 (with password login and editable rights)					
Multi language interface	English, German, Spanish, French, Italian, Portuguese, Russian, Chinese, Japanese, Polish, Czech, Romanian. All languages are editable.					

¹ Diascopic Light: Collimated Projector with green led light or Standard Directional led backlight.

Collimated projector intensity is software programmable when also Episcopic Light Control (2) is available.

² Episcopic Light Control: 4 independent 90° sectors, software programmable, front / episcopic white diffused led light, made to order.

³ Standard models, other custom FoV available on request.

⁴ Precision of measurement (±µm) of a line, obtained measuring a specific calibration target located approximately in FoV center, best focus position, at 25° C ±1°.

⁵ The dimensions of the measuring chamber are not the dimensions of the Field of View, therefore they have not to be considered as test area.

⁶ The model 145x105 is available with Collimated Diascopic Light (1) under request, in this case is possible to use it horizontally with the S_H_A_K Option.



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