

EPI-1510 Easson Profile Projector

Part No: DRO-ES-EP1-1510
Doc V: 1.0



EP-1 high precision optical profile projector Provides accurate 2D measurement for all common geometric features such as circle, lines, angles and etc, All measured results can be printed or transferred to computer for further processing.

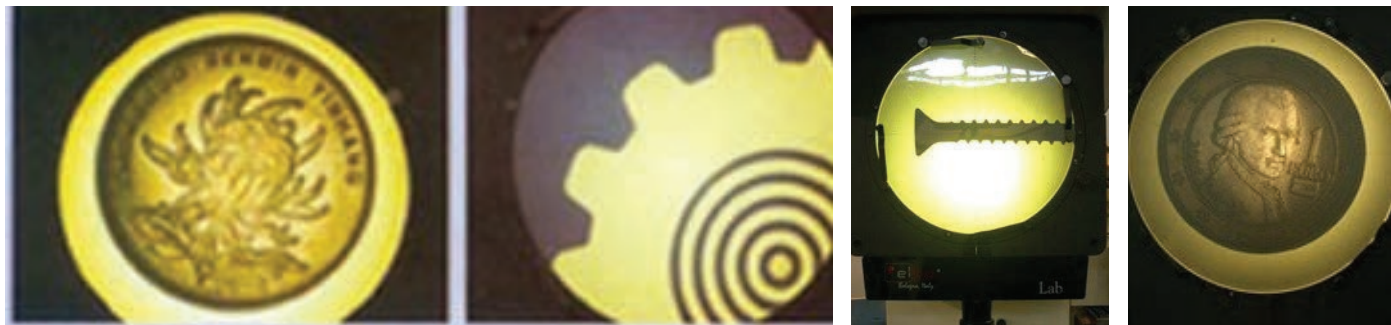
EP-1 optical profile projector is designed for all circuital dimensions measurement in mould & die making, form tools making, screw manufacturing, gear manufacturing and etc.

Constructed with top class components and under high standard of workmanship, the EP-1 achieves very high measurement accuracy. The axial measurement accuracy is $(3+L/100)\mu\text{m}$, where L is the measured length in mm. The total contour distortion is less than 0.08%.

High quality lighting & optical system provides brilliant images of exceptional quality.

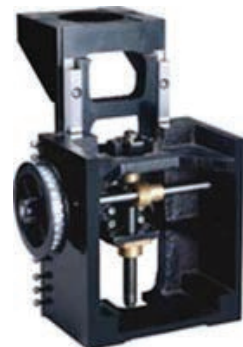
EP-1 equipped with ES-12 1 μm resolution high accuracy measuring system which provides comprehensive & easy to use geometric measurement functions.

Features of EP-I Optical Profile Projector



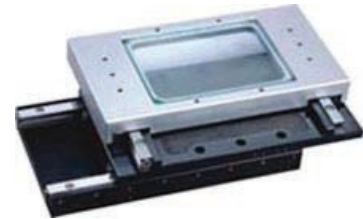
High stability machine casting

To avoid deformation caused by intimal stress of metal casting, in additional to normal intimal stress release process by tempering, all EP-1's castings are further stress release process to achieve high dimensional stability and hence to achieve long lasting accuracy.



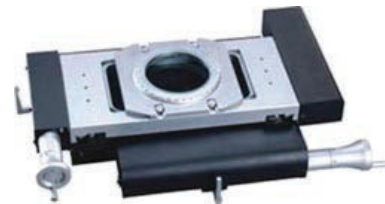
High precision linear guideway

The high precision linear guideways are used in all XYZ Axes movement to provide high straightness movement and hence to achieve high measurement accuracy.



Robust friction transmission system

To avoid back-lash problem in normal lead screw transmission system, rod base friction transmission system are used in EP-1's XY axes movements to provide excellent smooth, sensitive and back-lash free positioning for easy & precise measurement.



ES-12 Measuring System Specifications

Axis	X,Y axes linear transducer A axis rotary encoder
Resolution	0.001mm(X,Y axes) / 0.01deg.(A axis)
Coordinates	X,Y and Polar Coordinates Systems
Memory	99 features memory ;10 coordinates memory
Error Comp	Linear and non-linear error compensation
I/O Interface	RS-232C I/O interface
	<ul style="list-style-type: none"> • Basic measurement functions: point, line, angle, circle, ellipse, distance, angle, intersection • Pattern measurement function: Midpoint, circle tangent lines, line circle intersection, circles intersection, midline • language can be setting to English, Italy, German, French, Portuguese, Spanish, Chinese, Czech • Words and background color of screen can be set.

Geometric Measurement Functions



EP-I Technical Specifications

	EP 1510			EP 2010			EP 2515		
Table Dimensions	300mm x 170mm			350mm x 170mm			420mm x 250mm		
Glass Dimensions	175mm x 127mm			225mm x 120mm			290mm x 190mm		
X Measurement Travel	150mm			200mm			250mm		
Y Measurement Travel	100mm			100mm			150mm		
Z Focusing Travel				90mm					
DRO Resolution				0.001um					
Accuracy				(3+L/100)					
Screen Diameter	315mm						415mm		
A Readout Range				360 degree					
A Readout Resolution				0.01 degree					
Contour Distortion				0.08 degree					
Magnifications	10x	20x	50x	10x	20x	50x	10x	20x	50x
Visible Field	30mm	15mm	6mm	30mm	15mm	6mm	40mm	20mm	8mm
Focusing Distance	73mm	35mm	15mm	73mm	35mm	15mm	81mm	71mm	65mm

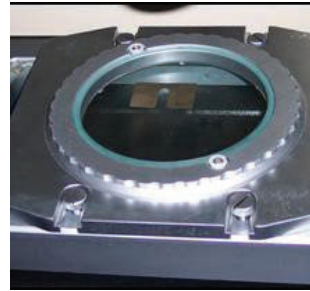
Accessories



ES-12 Digital Readout



Precision Lens (10X, 20X, 50X)



Rotary Work table

Control Panel

Includes Power (On/Off); Direct Light Key: High; Direct Light Key: Low; Reflective Light Key;



Printer



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*****
CIRCLE 1
XCent: 67.685
YCent: 20.018
Rad. : 4.747
Constructed from
P1. X: -0.182
Y: -9.635
P2. X: 2.012
Y: -9.606
P3. X: 5.087
Y: -2.853
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