

## Ø300mm Digital Vertical Profile Projector VB12 Series



### Product Features:

- ▶ 300mm diameter screen with digital protractor;
- ▶ Four size of precision movement work-stages;
- ▶ Double steel guide for stage lifting focus system;
- ▶ Halogen profile and surface illumination adjustable;
- ▶ Geometric multifunctional data processing system upgrade to DRO DP300;
- ▶ Built-in Mini-printer;
- ▶ Available 10x,20x,50x,100x objective, rotary table, edge detector, etc.

### Standard Delivery:

Digital Readout DP300	VX12-10x Objective	Screen Clamp Device
Built-in Mini-printer	Transmitted lens	Operation Manual

### Optional accessories:

Measuring Software	Rotary Table RT1	Rotary Table RT2	Printer Paper	Working Cupboard ST 02
20x Objective	50X Objective	100X Objective	Edge Detector SED-300	Over-Chart ST 140
Holder Clamp	V-shape Clamp	Swivel Center Support	5X Objective (Special)	Foot-Switch ST 150

**Technical specifications:**

<b>Reverse Image</b>	VB12-1550	VB12-1010	VB12-1510	VB12-2010
<b>Obverse Image</b>	VB12-1550Z	VB12-1010Z	VB12-1510Z	VB12-2010Z
<b>Metal Stage Size</b>	340x152mm	230x170mm	340x170mm	350x170mm
<b>Glass Stage Size</b>	196x96mm	145x120mm	196x120mm	246x120mm
<b>Stage Travel:X and Y-axis</b>	150x50mm	100x100mm	150x100mm	200x100mm
<b>Stage Travel:Z-axis</b>	100mm (for focusing)	100mm (for focusing)	100mm (for focusing)	100mm (for focusing)
<b>Accuracy</b>	$\leq 3+L/200(\mu\text{m})$	$\leq 3+L/200(\mu\text{m})$	$\leq 3+L/200(\mu\text{m})$	$\leq 3+L/200(\mu\text{m})$
<b>Resolution of X and Y-scale</b>	0.0005mm	0.0005mm	0.0005mm	0.0005mm
<b>Screen</b>	Diameter : $\varnothing 312\text{mm}$ , Effective Range $\geq \varnothing 300$ (with “* ” Reticle)			
	Rotary Range: 0~360° : Resolution Rotary Indicator: 1' or 0.01°			
<b>Digital Readout</b>	DP 300 Multifunctional Data Processing System			
<b>Illumination</b>	Surface and Contour Illumination:24v/150w halogen lamp (Adjustable);			
<b>Cooling System</b>	Forced Cooling (3-axis-fans)			
<b>Power Supply</b>	AC110V/60Hz; 220V/50Hz,650w			
<b>Dimension (LxWxH)</b>	780x530x1150mm	780x530x1150mm	780x530x1150mm	780x530x1150mm
<b>Packing Dimension</b>	990x765x1340mm	990x765x1340mm	990x765x1340mm	990x765x1340mm
<b>Gross/Net weight</b>	200/150kg	210/155kg	225/165kg	220/170kg

**Accessories:**


### Applied-fields:

Digital readout DP100 & DP300 is a mature product designed for the 2D measurement field, it is applicable with the optical measuring instruments, such as profile projector, video measuring system, toolmaker microscope and other vision measuring System. It is especially used with profile projector, and it can measure complicated geometry graph. Measurement includes workpiece skew, establishment of coordinates system, and so on.





Digital Readout DP100

Digital Readout DP300


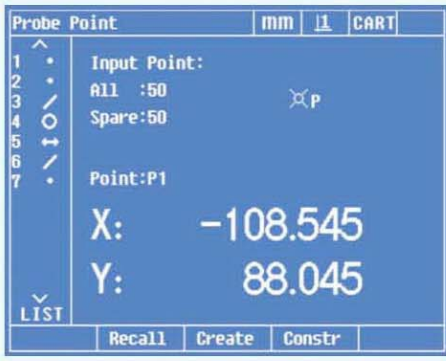


### Main Function:

- Measurement of point, line, circle, angle, distance, rectangle and screw thread, preset and constructure, the sampling points up to 50;
- Coordinate skew and movement, it is more convenient that the operator can skew position of workpieces for measuring, which reduce adjust time obviously;
- Clearance function can delete list, adjustment, and all;
- Opposite direction counting function, according to user's requirement;
- Half function, rapidly determine to display 1/2 value, and confirm midpoint of section;
- Permission function: Advanced setup can be done after right password input.
- Call function: input record ID to use existing element;
- Communication port of foot-switch or REINSHAW probe available;
- Printing: print graphic elements and 3-axis displaying value;
- RS232 output function: convey current position of linear scale to PC;
- Multi-display, separately display polar coordinates and cartesian coordinates, and can display millimeter and inch value, and can shift it;
- Linear compensation and section compensation available;
- Z-axis can connect linear scale and rotate encoder;
- Save 100 permanent graphic elements.

### Difference between DP100 and DP300

Items	DP100	DP300
Appearance	 <p>DP100 equips with two LCD, the small one is 256x32 lattice single color LCD, it is used to display some simple text data. The big one is Segment-Code LCD, it is used to display "Segment-Code" number, coordinate and other information. From the side, you can see the lattice single color LCD is higher than panel.</p>	 <p>DP300 equips with a 320x240 lattice single color LCD, it can display more text data and graph than DP100, and the help reminder is more directly and easily to understand and operate. From the side, you can obviously see the difference between DP100 and Dp300.</p>
Edge detecting function	Without edge detecting function	Support edge detector SED300

## Difference between DP100 and DP300

Items	DP100	DP300
Key	<div style="display: flex; justify-content: space-around; margin-bottom: 10px;"> <span>Setup</span> <span>Preset</span> <span>Construct</span> <span>Program</span> <span>Delete</span> </div> <p>The functions of five keys silkscreen are different with opposite five keys of DP300</p> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; margin-right: 10px;">More</div> <p>Key is different with DP300 silkscreen</p> </div> <p>Except the above difference, the others silkscreen, shape and layout are the same.</p>	<div style="display: flex; justify-content: space-around; margin-bottom: 10px;"> <span>F1</span> <span>F2</span> <span>F3</span> <span>F4</span> <span>F5</span> </div> <p>The functions of five keys silkscreen are different with opposite five keys of Dp100</p> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; margin-right: 10px;">Menu</div> <p>Key is different with DP100 silkscreen</p> </div>
Display	 <p>Example: Point Measurement From the above picture we get to know:lattice single color LCD display prompt message. Segment-Code LCD displays coordinate information. Prompt message and coordinate information is displayed in separately LCD.From the display content, Both DP100 and DP300 can display definite information, as "Measuring Type", "Points Number", "Unit", but DP300 is more visually.</p>	 <p>Example: Point Measurement From the above picture we get to know: Prompt message and coordinate information is displayed in one LCD.</p>
Display more information	<p>DP100 use Segment-Code LCD display data, for each screen can display three lines, if more information, please press page turning key.</p> <div style="margin-bottom: 10px;"> <div style="border: 1px solid gray; padding: 5px; display: flex; justify-content: space-between;"> <span>View</span> <span>065: CIRCLE <span style="float: right;">[Created]</span></span> </div> <div style="font-family: monospace; font-size: small;">X<sub>0</sub>:x-axis Y<sub>0</sub>:y-axis Z<sub>0</sub>:r</div> </div> <p>Press <span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">More</span> to see more information:</p> <div style="margin-bottom: 10px;"> <div style="border: 1px solid gray; padding: 5px; display: flex; justify-content: space-between;"> <span>View</span> <span>065: CIRCLE <span style="float: right;">[Created]</span></span> </div> <div style="font-family: monospace; font-size: small;">X<sub>0</sub>:D Y<sub>0</sub>:F2</div> </div> <p>All the information are displayed in Segment-Code LCD</p> 	<p>In DP300, all the information is displayed in one LCD, and can generate a reference picture, By comparison with DP100. The display is more friendly and comfortable.</p> 

## Quick Measuring Software

### Versions and Functions:

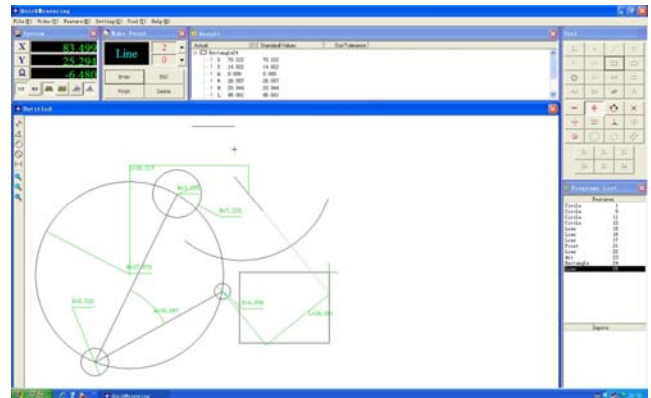
Version	Image Display	Auto-motor Control	3D Measure	Application
QM1.0	X	X	X	Profile Projector
QM2.0	√	X	X	2.5D Video Measuring Machine
QM2.1	√	X	X	Vertical/Horizontal Video Projector
QM3.0	√	X	√	3D Video Measuring Machine
QM3.1	√	X	√	3D Video Measuring Machine (Blue Cover)
QM4.0	√	√	X	2.5D CNC Video Measuring Machine
QM4.1	√	√	√	3D CNC Video Measuring Machine

### QM1.0 Application:

2D Measuring software QuickMeasuring 1.0 version used to work with profile projector(optical comparator), it can collect the scale coordination in PC keyboard, DRO panel and foot switch. Using the input point, can measure the basic graph element and construct elements. largely eliminates human error and improves the operators' working efficiency.

### Modern Compact Interface Design:

1. Toolbar
2. Coordinate display column
3. Geometrical display column
4. Measured result display column
5. Measuring and construction tool column
6. Dimension label tool column
7. Measuring graphic window
8. Procedure edit window



### Functions:

- Measurement of basic graph:Point,Line, Circle, Arc, Retangle and Cirque;
- Axis-skew and coordinate-shift;
- Element construction:Construct the Center, intersection, Midpoint, Line, Circle and Angle,etc;
- Save as\*. Dxf and edit in AutoCAD;
- Multi-points measurement;
- Word Excel and TXT report;
- English operation interface, other language available;
- Zoom in ,Zoom out, Move, Print, Select, Cancel select, Delete;
- Tolerance setup;
- Size and angle label;
- Scale calibration;
- Q-axis record;
- SPC function

