



**OPTOMECH**  
Your Quality Our Vision



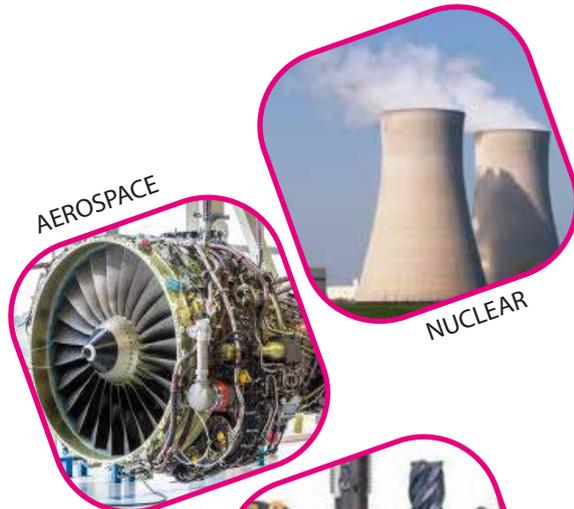
VPP ME



VPP CNC



VPP CNC HD



AEROSPACE

NUCLEAR

DIES & MOLDS

MACHINE TOOLS



ELECTRONICS



AUTO COMPONENTS



DEFENCE

# VIDEO PROFILE PROJECTORS

**Optomech** offers a range of Video Profile Projectors (VPP) to suit your budget and needs. The VPP Machine has been especially designed to facilitate the fast and accurate measurement of mechanical parts, plastic injection moulding parts, electronic devices, dies and moulds etc

Together with a precision measuring stage, a variable magnification zoom lens, software controlled LED light source and powerful yet user friendly measurement software, the VPP is a highly cost effective solution for metrology requirements.

The powerful software allows users to export the measured results to CAD software such as AUTOCAD, MASTERCAM etc. All measured results can be exported to Microsoft WORD or EXCEL

Model VPP CNC, VPP CNC HD and VPP MAZ, have 3D video measuring capability with motorized X, Y and Z movement, and motorized zoom lens, Z Axis measurement and auto focus are standard features.

The measuring efficiency of VPP is much higher than a normal profile projector at a price which is only marginally higher.

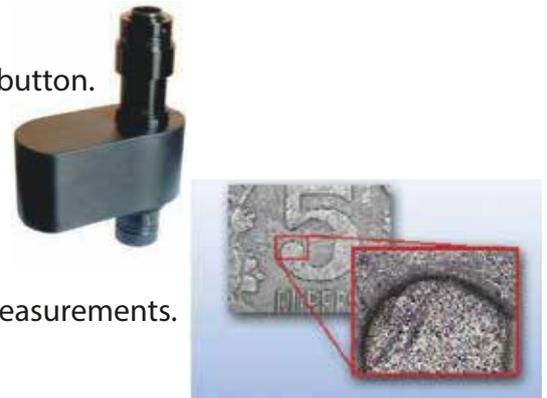
### X-Y stage with Joy stick controller Moment

- 3 axis controller for x, y and z movements.
- The stage can also be moved through the software using a mouse.

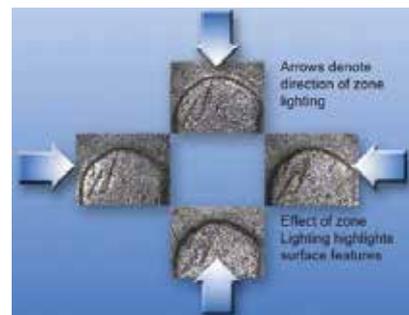
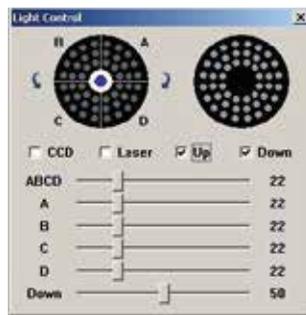


### Telecentric Zoom Lens

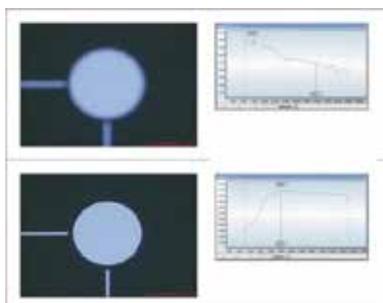
- Advanced zoom assembly moves from 30x to 200x at the touch of a button.
- Measure at any magnification level.
- Magnification up to 250x available for high precision measurement.
- Colour CMOS camera system for continuous, high quality video on screen.
- Take snapshots at any magnification.
- Software-assisted focusing results in objective focusing and z-axis measurements.



### Computer controlled LED light source



- Segmented ring light system
- Programmable lighting controlled through software.
- Quadra-zone lighting for enhanced visualization of surface features.
- Powerful, high tech lighting for precise measurements



### AutoFocus Capability

The machine has autofocus capabilities with graphical display. This enables accurate, operator independent measurements, and also allows depth measurements to be done.



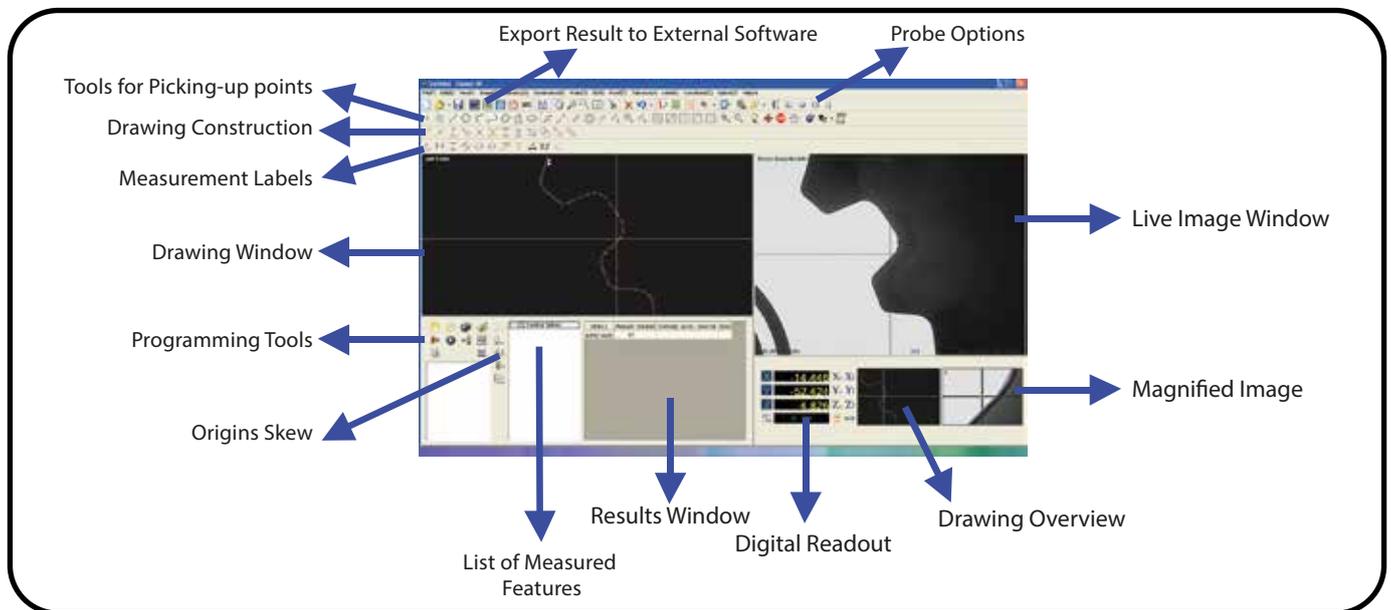
## Touch Probe Option

It detects surface and side co-ordinates for complicated 3D parts, where vision sensing cannot be used. A single part measurement can incorporate Vision and Touch Probing to realize multi-Sensing metrology in the common datum plane, giving the equipment capabilities of a CMM.



## Advance Measurement Software

The VPP System comes integrated on a PC based platform with proprietary feature rich software for enhanced measurement and analysis.



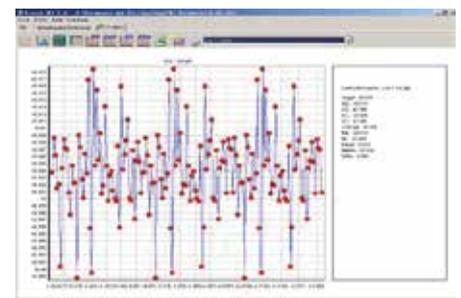
## Large Number of Reporting Formats

Results can be exported in many formats. AUTOMATICALLY create a word document, an Excel report, Export drawings into AutoCADD, Generate a PDF file. Or export data into the built in SPC software.



## Advanced SPC Software inbuilt

The VPP-MAZ and CNC vision measurement machine have SPS statistical analysis software inbuilt. This is helpful in analyzing and finding the weak link in the manufacturing process, thus saving costs. The software offers various kinds of charts and methods, such as Xbar-R, Xbar-S, Xmed-R, X-Rm etc., This largely increases the convenience and efficiency of the QC management.



## CNC Programming capability

For multiple quantity inspection, the software provided with VPP CNC models has learning capability. The user has to manually measure the workpiece only once. The software records the measuring process as a program. This can be used for repetitive measurements, this function makes the equipment a truly CNC equipment without the need to do any complex programming.



## VPPME SERIES

### Specifications: -

S.No	Description	VPPME 2010	VPPME 3020	VPPME 4030	VPPME 5040
<b>1.0</b>	<b>Structure</b>	100 Granite base and column			
<b>2.0</b>	<b>X Y Work Stage</b>				
2.1	Traverse: X & Y axis(mm)	200x100	300x200	400x300	500x400
2.2	Load capacity	20 kgs			
2.3	Moving System	Manual			
<b>3.0</b>	<b>Z axis</b>				
3.1	Traverse	150	200	200	200
3.2	Movement	Manual			
<b>4.0</b>	<b>Video System</b>				
4.1	Camera	1/3" Sony Sensor CCD			
4.2	Lens	High Resolution Telecentric Manual Zoom Lens			
4.3	Magnification range	Optical magnification 0.7 to 4.5x, Can do measurement at 30x to 200x			
<b>5.0</b>	<b>Illumination System</b>				
5.1	Profile	Software controlled LED profile illumination			
5.2	Surface	Software controlled 8 zone Ring Light			
<b>6.0</b>	<b>Measurement System</b>				
6.1	Linear measurement X Y Z axis	0.5 um high accuracy absolute reading scale			
6.2	Measurement software	3D geometric measurement software			
6.3	Measuring Accuracy	(3+L/200) u			
6.4	Repeatability	2 u			
<b>7.0</b>	<b>Operation Mode</b>	Manual			
<b>8.0</b>	<b>SPC</b>	Advanced SPC software in built			
<b>9.0</b>	<b>Computer</b>	Latest computer with 19" LCD monitor, Windows 10 OS			
<b>10.0</b>	<b>Standard Accessories</b>				
10.1	Operation manual	Operation and Instruction Manual			
10.2	Glass master plate	Standard Glass Master plate with with concentric circles and angles for Calibration			
10.3	Mounting Table	Ergonomically designed mounting table with granite top			
<b>11.0</b>	<b>Recommended Spares</b>				
	Stage glass	Spare Stage Glass for replacement			
<b>12.0</b>	<b>Physical Specifications</b>				
12.1	Net weight	150 kgs	200 kgs	290 kgs	400 kgs
12.2	Overall dimensions(mm)	135x72x155cm	135x72x160cm	135x72x160cm	150x92x160cm
<b>12.3</b>	<b>Optional Accessories</b>				
13.0	Operating conditions	10°C to 40°C			



## VPPMAZ SERIES

### Specifications: -

S.No	Description	VPPMAZ 2010	VPPMAZ 3020	VPPMAZ 4030	VPPMAZ 5040
<b>1.0</b>	<b>Structure</b>	00 Granite base and column			
<b>2.0</b>	<b>X Y Work Stage</b>				
2.1	Traverse: X & Y axis(mm)	200x100	300x200	400x300	500x400
2.2	Load capacity	20 kgs			
2.3	Moving System	Manual			
<b>3.0</b>	<b>Z axis</b>				
3.1	Traverse	150	200	200	200
3.2	Movement	Motorised with Auto Focus Control by mouse and key board			
<b>4.0</b>	<b>Video System</b>				
4.1	Camera	1.3 Mp industrial camera			
4.2	Lens	High Resolution Telecentric Zoom Lens with Sensor			
4.3	Magnification range	Optical magnification 0.7 to 4.5x, Can do measurement at 30x to 200x			
<b>5.0</b>	<b>Illumination System</b>				
5.1	Profile	Software controlled LED profile illumination			
5.2	Surface	Software controlled 8 zone Ring Light			
<b>6.0</b>	<b>Measurement System</b>				
6.1	Linear measurement X Y Z axis	0.5 um high accuracy absolute reading scale			
6.2	Measurement software	3D geometric measurement software with programming and autofocus			
6.3	Measuring Accuracy	(2.7+L/250) u			
6.4	Repeatability	2 u			
<b>7.0</b>	<b>Operation Mode</b>	X Y Manual ,Z Axis Control by Mouse, Keypad or Joystick			
<b>8.0</b>	<b>SPC</b>	Advanced SPC software in built			
<b>9.0</b>	<b>Computer</b>	Latest computer with 24" LCD monitor, Windows 10 OS			
<b>10.0</b>	<b>Standard Accessories</b>				
10.1	Operation manual	Operation and Instruction Manual			
10.2	Glass master plate	Standard Glass Master plate with with concentric circles and angles for Calibration			
10.3	Mounting Table	Ergonomically designed mounting table with granite top			
<b>11.0</b>	<b>Recommended Spares</b>				
	Stage glass	Spare Stage Glass for replacement			
<b>12.0</b>	<b>Physical Specifications</b>				
12.1	Net weight	160 kgs	210 kgs	300 kgs	410 kgs
12.2	Overall dimensions(cm)	135x72x165cm	135x72x170cm	135x72x170cm	150x92x170cm
<b>13.0</b>	<b>Optional Accessories</b>				
13.1	Touch Probe	Reinishaw Precision Touch Probe			
13.2	Motorised Lens with Coaxial Lighting	With Magnification software selectable			
<b>14.0</b>	<b>Operating conditions</b>	10°C to 40°C			



## VPPCNC SERIES

### Specifications: -

Description	VPPCNC 3020	VPPCNC 4030
<b>1.0 Structure</b>	00 Granite base and column	
<b>2.0 X Y Work Stage</b>		
2.1 Traverse: X & Y axis(mm)	300 X 200	400 X 300
2.2 Load capacity	30 kgs	50 kgs
2.3 Moving System	Servo motor drive system	Panasonic AC Servo Motor and Driver
<b>3.0 Z axis</b>		
3.1 Traverse	200	200
3.2 Movement	Motorised with Auto Focus Control by mouse , Keyboard and Joystick	
<b>4.0 Video System</b>		
4.1 Camera	1.3 Mp industrial camera	
4.2 Lens	High Resolution Telecentric Zoom Lens with Sensor	
4.3 Magnification range	Optical magnification 0.7 to 4.5x, Can do measurement at 30x to 200x	
<b>5.0 Illumination System</b>		
5.1 Profile	Software controlled LED profile illumination	
5.2 Surface	Software controlled 8 zone Ring Light	
<b>6.0 Measurement System</b>		
6.1 Linear measurement X Y Z axis	0.1 um high accuracy absolute reading scale	
6.2 Measurement software	3D geometric measurement software with programming and autofocus	
6.3 Measuring Accuracy	(2.5+L/250) u	
6.4 Repeatability	2 u	
<b>7.0 Operation Mode</b>	Automatic CNC Control by Mouse, Keypad or Joystick /High Speed , reliable ethernet connection with	
<b>8.0 SPC</b>	Advanced SPC software in built	
<b>9.0 Computer</b>	Latest computer with 24" LCD monitor, Windows 10 OS	
<b>10.0 Standard Accessories</b>		
10.1 Operation manual	Operation and Instruction Manual	
10.2 Glass master plate	Standard Glass Master plate with with concentric circles and angles for Calibration	
10.3 Mounting Table	Ergonomically designed mounting table with granite top	
<b>11.0 Recommended Spares</b>		
Stage glass	Spare Stage Glass for replacement	
<b>12.0 Physical Specifications</b>		
12.1 Net weight	280 Kgs	360 Kgs
12.2 Overall dimensions(mm)	900x700x1750	1100x800x1750
<b>13.0 Optional Accessories</b>		
13.1 Touch Probe	Reinshaw Precision Touch Probe	
13.2 Motorised Lens with Coaxial Lighting	With Magnification software selectable	
<b>14.0 Operating conditions</b>	10°c to 40°c	



## VPPCNC HD

### Specifications: -

S.No	Description	VPPCNC HD 5040	VPPCNC HD 6050
<b>1.0</b>	<b>Structure</b>	00 Granite base and column	
<b>2.0</b>	<b>X Y Work Stage</b>		
2.1	Traverse: X & Y axis(mm)	500x400	600x500
2.2	Load capacity	50 kgs	
2.3	Moving System	Panasonic AC Servo Motor and Driver	
<b>3.0</b>	<b>Z axis</b>		
3.1	Traverse	200	200
3.2	Movement	Motorised with Auto Focus Control by mouse , Keyboard and Joystick	
<b>4.0</b>	<b>Video System</b>		
4.1	Camera	1.3 Mp industrial camera	
4.2	Lens	High resolution motorized automatic telecentric zoom lens with Magnification Software Selectable	
4.3	Magnification range	Optical magnification 0.7 to 4.5x, Can do measurement at 30x to 200x	
<b>5.0</b>	<b>Illumination System</b>		
5.1	Profile	Software controlled LED profile illumination	
5.2	Surface	Software controlled 8 zone Ring Light & Coaxial Light	
<b>6.0</b>	<b>Measurement System</b>		
6.1	Linear measurement X Y Z axis	0.5 um high accuracy absolute reading scale	
6.2	Measurement software	3D geometric measurement software with programming and autofocus	
6.3	Measuring Accuracy	(2.5+L/250) u	
6.4	Repeatability	2 u	
<b>7.0</b>	<b>Operation Mode</b>	Automatic CNC Control by Mouse, Keypad or Joystick /High Speed , reliable ethernet connection	
<b>8.0</b>	<b>SPC</b>	Advanced SPC software in built	
<b>9.0</b>	<b>Computer</b>	Latest computer with 24" LCD monitor, Windows 10 OS	
<b>10.0</b>	<b>Standard Accessories</b>		
10.1	Operation manual	Operation and Instruction Manual	
10.2	Glass master plate	Standard Glass Master plate with with concentric circles and angles for Calibration	
10.3	Mounting Table	Ergonomically designed mounting table with granite top	
<b>11.0</b>	<b>Recommended Spares</b>		
	Stage glass	Spare Stage Glass for replacement	
<b>12.0</b>	<b>Physical Specifications</b>		
12.1	Net weight	500 kgs	700 kgs
12.2	Overall dimensions(cm)	130x90x175	140x95x175
<b>13.0</b>	<b>Optional Accessories</b>		
13.1	Touch Probe	Reinshaw Precision Touch Probe	
<b>14.0</b>	<b>Operating conditions</b>	10°c to 40°c	



Optomech Engineers Pvt. Ltd. was founded in Hyderabad, India in the year 1981.

Optomech has over 37 years of experience of successful development, manufacturing, servicing and marketing of products involving vision technology for quality inspection.

Optomech has a well-equipped optical and mechanical design and fabrication facility at its works at Hyderabad which is ably supported by a team of motivated and trained engineers for installation, commissioning, training and after sales services of its equipment's.

We are closely orientated towards the needs of the market. We are one of the leading providers of vision technologies for quality inspection. Renowned companies place their trust in the solutions and services provided by Optomech.

We accompany you all the way from the initial consultation up to final installation and training and beyond. You will benefit from our many years of experience and will be able to deal with the challenges encountered when implementing the new technology.

### Comparison between VPP Models

S No	Features	VPP ME	VPPMAZ	VPPCNC	VPPCNCHD
1	Z Axis Motorised with Auto Focus	No	Yes	Yes	Yes
2	Linear Encoder Resolution	0.5µm	0.5µm	0.1µm	0.5µm
3	Motorised Zoom Lens with Software Controlled Magnification Setting	No	No	No	Yes
4	LED Profile Illumination with Software Control	Yes	Yes	Yes	Yes
5	LED Ring Light Surface Illumination with 6 Rings and 8 Segments Software Controlled	Yes	Yes	Yes	Yes
6	Touch Probe Option	No	Yes	Yes	Yes
7	Part Programing and Storage	No	Yes	Yes	Yes
8	X Y Axis Motorised	No	No	Yes	Yes
9	CNC Operation	No	No	Yes	Yes

our other metrology products

Optical Profile Projector



PP400TE

Quick Measuring System



OPTO 1200

Bottle Inspection System



BIS Measure



**OPTOMECH**  
Your Quality Our Vision

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*We reserve the right to modify the product specifications, in the interest of product development*