

MUMA/ Aluminum Alloy Vision Measuring Machine



Product Description

MUMA series provides cost effective solution for small part inspection. Designed with practicability and convenient in mind, MUMA is supplied power by computer USB connector or separated power adapter, and move Z axis height by fine-tuning.

Product Features

1. Pretty design with compacted frame, steady performance and facilitated operation.
2. Aluminum alloy design is for less weight and better rigidity.
3. New Z-axis transmission is for fine-tuning.
4. Step zoom lens doesn't need any linear calibration through software.
5. High resolution 130,000 pixels CMOS camera
6. USB2.0 counter card is integrated which is connected to notebook directly.

Technical Parameters

Model	MUMA200
Measuring Range(X/Y:mm)	200×100
Dimension(mm)	430×430×640
Lens	3DFAMILY-P type step zoom lens
Image Magnification	28-180X
CCD	High resolution CMOS camera
Operation Mode	Manual
Light Source	USB LED light or external light
Optical Ruler Resolution	0.001mm
Repeatability	3μm
Precision (X/Y)	(3+L/200) μm
Machine Weight	26 kg
Load Capability	10 kg
Software	OVM-MUMA
Free Maintain Time	One year

Applied Fields

Mobile fittings, home appliances, connector, machine fittings, precision fixture, plastic, hardware, circumjacent fields of computer and so on.

VMS/Vision Measuring Machine



■ Product Description

VMS series is an economy vision measuring machine, to configure 3DFAMILY color CCD and laser indicator which can show the measured point.

OVM Lite version software developed by 3DFAMILY R&D Dept. offer basic measure function of point, line, circle, distance between two points, angle and coordinate transfer, etc. to meet basic 2D measure requirements; in addition, the measure data can be input to EXCEL, WORD and TXT or output to DXF for CAD design.

■ Product Features

1. Granite base and stand can promise machine structure steady.

2. X, Y axis with optical scale ruler ensures accurate positioning.
3. Z axis adopts clump weight, easily to use; the Z axis structure is stabled without being distorted.
4. Laser indicator can point current measuring position accurately.
5. 3DFAMILY S style lens is kind of continuous lens zoom: 0.7-4.5X
6. LED cold light is both for top and bottom to avoid workpiece distortion.

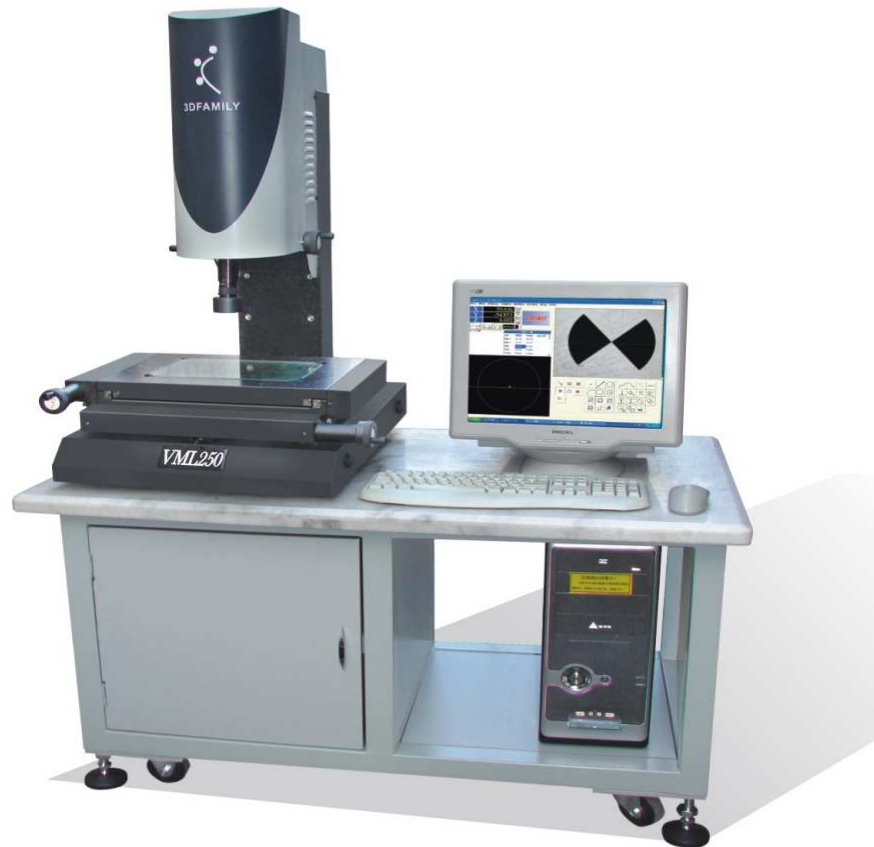
■ Technical Parameters

Model	VMS250	VMS300	VMS400
Measuring Range (X/Y:mm)	250×150	300×200	400×300
Dimension(mm)	1000×650×1650		
Operation Mode	Manual		
CCD	410,000 pixel 3DFAMILY -L color CCD		
Lens	3DFAMILY-S continuous zoom lens		
Magnification	Optical magnification: 0.7X-4.5X; Image magnification: 28X-180X		
Software	OVM Lite		
Optical Ruler Resolution	1μm		
Repeatability	2μm		
Precision (X/Y)	(3+L/200)μm		
Load Capacity	30kg		
Applicable Environment	Power:110V~220V±10% 50/60HZ Temperature: 20±5℃ Humidity: 45%-75%		
Free Maintain Time	One year		

■ Applied Fields

Mobile fittings, home appliances, connector, machine fittings, precision fixture, plastic, hardware, circumjacent fields of computer and so on.

VML/3D Vision Measuring Machine



■ Product Description

VML series is basic 3D vision measuring machine, which can realize 28-180X continue image magnification. It can do height measurement by Z axis optical ruler. In addition, it can use optional RENISHAW touch probe to combine with software to realize accurate height measurement.

■ Product Features

1. Granite base and stand can promise machine structure steady.
2. Laser indicator can point current measuring position accurately.
3. 3DFAMILY L style lens is kind of continuous lens zoom: 0.7-4.5X.
4. Touch probe can be added, which matches with TPM software to do height measurement.

■ Technical Parameters

Model	VML250	VML300	VML400
Measuring Range (X/Y:mm)	250×150×200	300×200×200	400×300×200
Dimension(mm)	1000×650×1650		
Material	High precision granite		
Operation Mode	Manual		
CCD	410,000 pixel 3DFAMILY -L color CCD		
Lens	3DFAMILY-L continuous zoom lens		
Magnification	Optical magnification:0.7X-4.5X; Image magnification:28X-180X		
Software	OVM Lite		
Optical Ruler Resolution	1μm		
Repeatability	2μm		
Precision (X/Y)	(3+L/200) μm		
Load Capacity	30kg		
Applicable Environment	Power:110V~220V±10% 50/60HZ Temperature: 20±5 °C Humidity: 45%-75%		
Free Maintain Time	One year		

■ Applied Fields

Mobile fittings, home appliances, connector, machine fittings, precision fixture, plastic, hardware, circumjacent fields of computer and so on.

VME/3D Vision Measuring Machine (Z in front)



■ Product Description

Z axis and dimming panel are in front and OVM software has power function, which makes VME series easy operation and less cost.

■ Product Features

1. Granite base and stand can ensure the machine steady
2. Z axis front transmission system is to operate machine easily.
3. 3DFAMILY-E lens with Step-Zoom orientation lens needs no linear calibration at fixed multiple with the software.
4. Multi-use calibration block is as attachment of the machine, used both for teach drilling and precision calibration.
5. Touch probe can be added with TPM software to do 3D measurement.

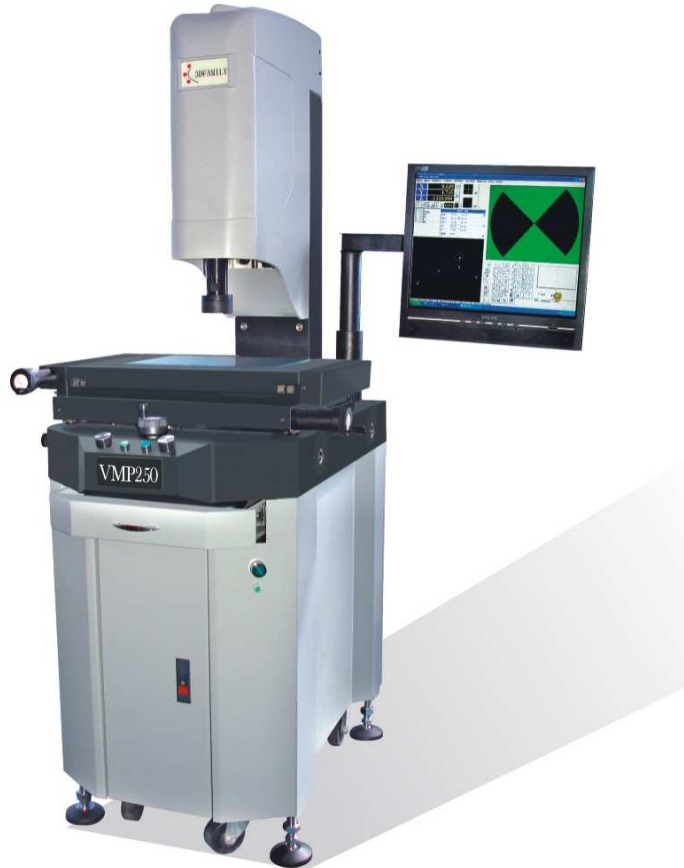
■ Technical Parameters

Model	VME 250	VME 300	VME 400
Measuring Range (X/Y/Z:mm)	250×150×200	300×200×200	400×300×200
Dimension(mm)	800×500×1650	980×650×1650	1160×800×1650
Operation Mode	Manual		
CCD	410,000 pixel 3DFAMILY –E color CCD		
Lens	3DFAMILY-E Step-Zoom lens		
Magnification	Optical magnification: 0.7X-4.5X; Image magnification: 28X-180X		
Software	OVM		
Optical Ruler Resolution	1μm		
Repeatability	2μm		
Precision (X/Y)	(3+L/200)μm		
Load Capacity	30kg		
Applicable Environment	Power:110V~220V±10% 50/60HZ Temperature: 20±5°C Humidity: 45%-75%		
Free Maintain Time	One year		

■ Applied Fields

Mobile fittings, home appliances, connector, machine fittings, precision fixture, plastic, hardware, circumjacent fields of computer and so on.

VMP/High Precision 3D Vision Measuring Machine



■ Product Description

VMP series is classic type machine to adopt many 3DFAMILY technology patents, which is considered as the most humanistic design idea. VMP series realize out high precision, easy operation, high efficiency and less space.

■ Product Features

1. Linear precision can reach to $2.5+L/200\mu\text{m}$.
2. 3DFAMILY-P lens, with Step-Zoom orientation lens, needs no linear calibration at fixed multiple with the software.
3. Programmable 4-quadrant ring surface light with the coaxial profile light to improve the measuring precision, LED illumination to avoid second distortion of the workpiece.

■ Technical Parameters

Model	VMP250	VMP300	VMP400
Measuring Range (X/Y/Z:mm)	250×150×200	300×200×200	400×300×200
Dimension(mm)	650×800×1600		1060×800×1650
Operation mode	Manual		
CCD	430,000 pixel color CCD		
Lens	3DFAMILY-P Step-zoom lens		
Magnification	Optical magnification: 0.7X-4.5X; Image magnification: 28X-180X		
Measuring System	OVM		
Optical Ruler Resolution	1μm		
Repeatability	2μm		
Precision (X/Y)	(2.5+L/200)μm		
Load Capacity	30kg		
Applicable Environment	Power:110V~220V±10% 50/60HZ Temperature: 20±5℃ Humidity: 45%-75%		
Free Maintain Time	One year		

■ Applied Fields

Mobile fittings, home appliances, connector, machine fittings, precision fixture, plastic, hardware, circumjacent fields of computer and so on.

VMC-S/ Automatic 3 Axes 3D Vision Measuring Machine



■ Product Description

VMC-S series is a simple full automatic vision measuring machine, which can finish all the measurements through mouse or joystick and analysis measuring report in SPC. The machine is kindly used for batch inspection to save working time.

■ Product Features

1. CNC control system for the 3 axes(X/Y/Z closed loop servo control system), the precision of orientation is high.
2. Mouse or joystick is used for operation easily.
3. Programmable 4-quadrant ring surface light with the coaxial profile light to improve the measuring precision, LED illumination to avoid second distortion of the workpiece.
4. OVM Pro full automatic vision measuring software with strong function is developed by 3DFAMILY.

■ Technical Parameters

Model	VMC250S	VMC300S	VMC400S
Measuring Range (X/Y/Z:mm)	250×150×200	300×200×200	400×300×200
Dimension(mm)	800×500×1650	800×600×1650	1060×800×1650
Operation Mode	Automatic in X, Y, Z axes		
CCD	430,000 pixel color CCD		
Lens	3DFAMILY-P Step-Zoom lens		
Magnification	Optical magnification: 0.7X-4.5X; Image magnification: 28X-180X		
Software	OVM Pro 2.0		
Optical Ruler Resolution	1μm		
Repeatability	2μm		
Precision (X/Y)	(3+L/200)μm		
Load Capacity	30kg		
Applicable Environment	Power:110V~220V±10% 50/60HZ Temperature: 20±5 °C Humidity: 45%-75%		
Free Maintain Time	One year		

■ Applied Fields

PCB, mobile fittings, connector, batched-quick inspection for machine parts.

VMC/Full Automatic 3D Vision Measuring Machine



■ Product Description

VMC series is full automatic measuring machine to adopt full closed loop servo control system and NAVITAR lens, which can do easy measurement on complex workpiece.

■ Product Features

1. Programmable 4-quadrant LED surface light, does the surface measuring for different complicated workpieces, improve the measuring precision.
2. American NAVITAR lens, together with Motor Zoom technology, makes full automatic continuous zooming come true and no calibration when changing zoom arbitrarily.
3. Mouse or joystick is used easily.
4. CNC control system for the 4 axes(X/Y/Z full closed loop servo control system/U stepping control system).

■ Technical Parameters

Model	VMC250	VMC300	VMC400	VMC663
Measuring Range (X/Y/Z:mm)	250×150×200	300×200×200	400×300×200	600×600×300
Dimension(mm)	800×500×1650		980×650×1650	1180×950×1650
Operation Mode	Automatic			
CCD	430,000 pixel color CCD			
Lens	American NAVITAR Motor Zoom lens			
Magnification	Optical magnification: 0.7X-4.5X; Image magnification: 28X-180X			
Software	OVM Pro 2.0			
Optical Ruler Resolution	1μm			
Repeatability	2μm			
Precision (X/Y)	(3+L/200)μm			
Load Capacity	30kg			
Applicable Environment	Power:110V~220V±10% 50/60HZ Temperature: 20±5 °C Humidity: 45%-75%			
Free Maintain Time	One year			

■ Applied Fields

PCB, mobile fittings, connector, batched-quick inspection for machine parts.

NEW VISION- II /Full Automatic Vision Measuring Machine



■ Product Description

NEW VISION Series is the latest vision measuring machine developed by 3DFAMILY who has accumulated CNC developed experiences over the past years. The machine improves the original weighted structure to a well-proportioned and pleasing shape and adopts special transmission modular design, the lens with laser head image module and friendly software made it more stable, convenient and professional than ever.

■ Product Features

1. Pretty design, compact structure with small size.
2. Modular design makes assemble and install maintenance more conveniently.
3. Guide screw drive with lower noise, position accurately and move smoothly.
4. Integrated circuit design is intelligent enough to find out the failure points.

5. New design of five rings and eight sections lamp helps to find the workpiece boundary more clearly.
6. CNC software with friendly user interface with good stability is easy to operate.
7. Powerful learning function and SPC statistical function greatly improve the inspection efficiency.

■ Technical Parameters

Model	NEW VISION- II -300	NEW VISION- II -400
Measuring Range (X/Y/Z: mm)	300×200×150	400×300×200
Dimension(mm)	750×950×1000	850×1050×1000
Material	Workstage:Aerometal, Base: Granite	
Operation Mode	CNC	
Motor Control Mode	Semi-closed loop control (joystick or mouse)	
Precision (X/Y)	$E_2=(3+L/200) \mu\text{m}$	
Repeatability (X/Y)	< 3 μm	
Precision (Z)	$E_1=(3+L/200) \mu\text{m}$	
Repeatability (Z)	< 3 μm	
X/Y Speed& Acceleration	Speed: 0-150 mm/s ² , Acceleration:0-250 mm/s ²²	
Z Speed& Acceleration	Speed: 0-50 mm/s ² , Acceleration:0-100 mm/s ²	
Optical Ruler Resolution	1 μm (0.5 μm optional)	
CCD	Color CCD	
Surface Light	LED(white, red, yellow, green is optional) five rings eight sections light	
Profile Light	LED(white, red, yellow, green is optional) subparallel light	
Magnification	Optical magnification: 0.7X-4.5X; Image magnification: 28X-180X	
Applicable Environment	Power:110V~220V±10% 50/60HZ Temperature: 20±5 °C Humidity: 45%-75%	
Free Maintain Time	One year	

■ Applied Fields

PCB, mobile phone fittings, linker, machine fitting, precision fixture, circumjacent fields of computer, precision stamping and so on.

NV/ Super Range Full Automatic 3D Vision Measuring Machine



■ Product Description

NV series is the measuring machine special for super large workpiece, which has made up for large range measuring machine's weakness in current market. This series machine has applied many technology patents.

■ Product Features

1. Guide rail is on the granite base directly which can promise best precision for guide rail.
2. Structure for X axis is arch to make sure the X axis steady.
3. 40 quadrants light, camera and optional laser are installed together in Z axis.
4. Control box is on the back of machine body, the combined design can reduce each cables length.
5. Machine cover can be opened freely and convenient for maintenance.

6. LED display is outside of control box, which operator can check machine problems conveniently.
7. Motor power cable is separated with encoding cable to reduce the circuit disturbance.

■ Technology Parameters

Model	NV700	NV1200	NV1700	NV500
Measuring Range (X/Y/Z:mm)	600×700×200	1000×1200×200	1300×1700×200	400×500×200
Dimension(mm)	1900×1350×1397	2400×1750×1497	2900×2100×1743	1800×1300×1407
Machine Weight	2000kg	4000kg	8000kg	2000kg
X/Y axis Precision	(3.5+L/250)μm	(4.5+L/250)μm	(5.5+L/250)μm	(3+L/250)μm
Z axis Precision	(3.0+L/150)μm			
Speed	Acceleration Speed: X/Y: 1400 mm/s ² , Z: 500 mm/s ² Speed: X/Y: 700mm/s, Z:100mm/s.			
Optical Ruler Resolution	1μm (0.5μm is optional)			
CCD	SONY CCD			
Light	Bottom light: White (color is optional) Top light: 40 quadrants light, white (color is optional)			
Lens	American NAVITAR Motor Zoom lens			
Magnification	Optical magnification: 1X-6X; Image magnification: 30X-150X			
Operation Mode	Automatic			
Software	OVM Pro 2.0			
Machine Load Capacity	30kg			
Applicable Environment	Power:110V~220V±10% 50/60HZ Temperature: 20±5 °C Humidity: 45%-75%			
Free Maintain Time	One year			

■ Applied Fields

Large stamping parts, PCB, TFT, backlight, insulation parts, panel, frame and so on.