



# A77

## PLACE.VALIDATE.ANALYZE

With the affordable measurement system you can validate your production parts quickly in a few basic steps. Save time and money with this innovative device powered by Atoms Precision V2.

designed for



ATOMS  
Precision V2

# A<sup>77</sup>

“The measurement system for quick and easy validation of precision parts”

## Equipment

Atoms A77 , an Image Dimension Measuring System

The totally new A77 is a Breakthrough in Dimensional Measurement .

It is now possible for anyone to measure quickly and accurately without the worry of operator variability in results .

### The System

The system consists of a High resolution industrial Digital Video camera, A double Tele-centric lens , A precisely engineered body and a collimated Led illumination System .

And At the Heart of the system is the advanced measuring software Atoms Precision V2 , running on a Windows PC.

### Advantages

It is now Possible to -

- Shorten inspection time Dramatically.
- Respond to requests for 100% inspection .
- Increase the quantity of inspection and achieve higher reliability .
- Improve data management of inspection results .

### Salient features

- The software has been made using the same menu system that is used in the “ Microsoft Office ” Suit . So the software already looks familiar, is user friendly and extremely easy to learn
- The software consists of password protected access control , so the operator can not make any templates or tamper with the results in any way. The operator only needs to place the part and press the button .





## Software

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### Step 1 Create Template

Atoms Precision V2 has a unique masking tool for easy and fast detection of the contour segments you want to be measured, one simply needs to paint over the edge of the part as seen in the image on the screen, the software automatically detects the edge, creates hundreds of points over the entire edge and then calculates the average and automatically creates the geometric primitives, Alternatively the template can be created based on your engineering drawing in DXF format. After all the features have been identified, the inspector can specify the Nominal dimensions and the tolerances

### Step 2 Measure And Validate.

The Operator simply places the production part on the A77 and presses a button, On the Press of the Button the Following Events take Place.

#### Align Template


The software captures an image and automatically recognizes its shape and aligns the image of the part with the template.

#### Validate

The A77 instantly Measures all the dimensions specified in the earlier created template and validates the part for acceptance or rejection. The part can be validated for Hundreds of dimensions precisely at the click of a button.

#### Report

Since all the tolerances are already specified while preparing the template, the dimensional report is made and is automatically saved as an .xml file. The A77 is now ready for the measurement of the next part.

At the end of the day we can generate a summary report which gives all the statistical data like Average, Min, Max, Std Dev, CPK, ect. 



Model: ATOMS A77-

## Description

## Specifications

Image pickup device	5Mp CCD Camera
Video projection Lens	Telecentric lens
Field of view	32mm x 23mm
illumination system	Collimated Green LED illumination
Least Count of Measurement	1 $\mu$ m
Repeatability	$\pm 2 \mu$
Interface	USB 2.0
Environmental conditions	
Operating ambient temperature	(+)10 to 35 <sup>o</sup> C
Operating ambient humidity	20% to 80% RH (no condensation)
Z Axis Movement	210mm
Load Capacity	3kg
Power supply	AC 100-240V 50/60Hz 180VA max.
Weight	7kg

## Software Features

- Automatic measurement of 2- dimensional production parts in seconds.
- The software measures all defined dimensions with only 'one click' required.
- Measure small quantities fast and accurate.
- Import DXF files to create templates from CAD software or export contours into DXF.
- Create measurement templates from scratch within minutes.
- Created templates can be used indefinitely
- Create measurement reports from every measurement taken to analyse processes.

