

# AVBIS 3000 M

## Automated Bottle & Preform Measurement System – Manual Load

### Flexible

3000M is able to measure bottles and/or preforms with few or no change-out parts.

### Simple

Touchscreen interface is easy for operators to understand and use.

### Repeatable

No operator introduced error.

### Versatile

Standard system measures bottle heights up to 15" and diameters up to 10".

**AVID Corporation**  
222 International Dr.  
Ste. 105  
Portsmouth, NH  
03801

(603) 559-9700

sales@avidvision.com



The AVBIS 3000 M is AVID Corporation's basic automated vision bottle / preform measurement system. Designed to measure neck finish and body dimensions accurately, repeatably and quickly, the AVBIS 3000 M is an ideal choice for quality attentive packaging manufacturers looking to improve their measurement capabilities. The small footprint and low-cost (<\$65K for the base system) of the AVBIS 3000 M suits those laboratories with space and budget constraints.

### Technical

Similar to other variants of the AVBIS 3000 series, the AVBIS 3000M's megapixel camera/telecentric lens combination eliminates the need for precise part placement, and yields measurements of great precision and accuracy. The AVBIS 3000 M gives the manufacturer the ability to inspect the neck finish, inner diameter (with option) and panel dimensions of an operator placed bottle or preform.

Due to the large field of view, most neck finishes can be measured in less than two seconds per angle. A set of typical bottle measurements can be completed in thirty seconds. Because there is no automatic loading or unloading system, this short measurement time enables many users to increase throughput speed without the expense of an automated feeder. An operator is required to simply place the part to be measured onto the rotary measurement platform, and remove it following completion of the measurement routine.

Other technical attributes include an ID gauge option for measuring neck finish inner diameter (ID), a large (6") field of view camera and optics option package for thermal stability testing, and large format motion control option for containers beyond the standard system's range of motion.

### Operation

Once a part is programmed, it can be called up in moments by an operator. The bottle or preform is placed near the center of the automated turntable (precise centering or orientation is generally unnecessary) and the operator presses the RUN button. The system begins by searching for the thread start (if applicable) in order to locate the S dimension and to provide a rotational datum (origin) position for other measurement locations. The AVBIS turns to each of these angles of interest and measures the dimensions selected at each. A typical set of bottle dimensions takes approximately 15-45 seconds to measure. The operator may replace the bottle with the next in a series, or select a new part for measurement. Data can either be sent automatically to Excel or a remote file location, or reviewed manually by the operator before sending.

The 3000 M also features an "automatic mode" for operator use. After a bottle is measured, the system will pause until the part is removed and a new part is placed on the rotary table. An adjustable countdown timer allows operators to adjust the part position if required. This "automated" feature allows the operator to measure a series of bottles without having to interact with the touchscreen, thus increasing throughput and reducing errors.

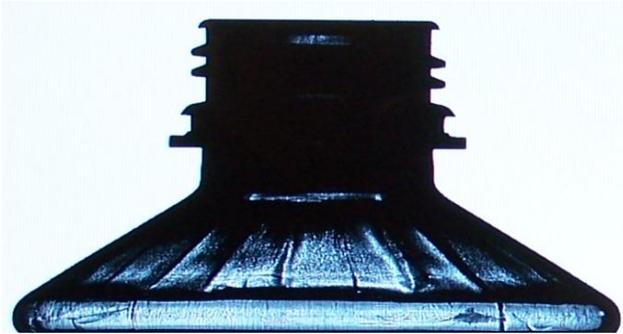
### Target Application

The AVBIS 3000 M is a manually loaded system, and while measurement routines are completed faster due to the lack of an automatic feeder, the system does rely on an operator to load and unload parts in a series. Because the AVBIS 3000M does not "free" an operator completely from the measurement process, AVID Corporation recommends the 3000 M to smaller volume manufacturers with lower output production lines. The 3000 M is ideal for manufacturers new to automated measurement system and are looking to replace manual measurement tools. The AVBIS 3000M is also useful for non-production or R&D facilities and fillers looking to verify supplier quality claims, or vertically integrated processors verifying their production capabilities.

Due to the similar optics and motion control packages between the AVBIS 3000 series variants, the AVBIS 3000 M can be converted into C, P or Pharma variant. Contact AVID Corporation to discuss any future conversion plans for the AVBIS 3000 M.

### **Training**

In order to ensure successful adoption of the AVBIS 3000 M at the customer facility, customer attendance of an AVID Corporation AVBIS training class is a requirement for system delivery. The customer should select between 1 and 3 measurement experienced technicians to attend a two-day training class at AVID Corporation prior to system shipment. Technicians experienced with packaging measurement and automated instrumentation generally find the AVBIS 3000 M simple to use.



Screenshot from AVBIS 3000 M of Vegetable Oil Bottle



### **QUIKCHEK Alternative**

To those customers seeking a lower-cost measurement option, and do not require the automated capabilities of the AVBIS 3000 M, contact AVID Corporation for information regarding the QUIKCHEK bottle/preform finish measurement system. Featuring the same interface and setup tools as the AVBIS 3000 series, the QUIKCHEK is a robust measurement platform designed for neck finish measurement only. Contact AVID to discuss whether this system is appropriate for your measurement requirements.

### **AVBIS 3000 M Technical Specifications**

#### **System Type:**

Automated Vision Measurement

#### **Feeder Type:**

Operator

#### **Size (Base System):**

60" Width, 30" Depth, 60" Height  
1525mm Width, 765mm Depth, 1525mm Height  
(Options or customization may alter dimensions)

#### **Products Measured:**

Bottles, Preforms, certain Containers

#### **Materials Measured:**

Plastics, Glass and Metal

#### **Dimension(s) Measured:**

All SPI / ISBT Standard Finishes Including (but not limited to):  
Height, S, T, E, K, H, Z, X, A, D, L, W, B, F, HF, HZ, Neck  
Straight, Lean, Body Diameter(s).  
(Other non-standard measurements possible;  
Contact AVID to discuss measurement requirements.)

#### **Measurement Time:**

- Varies with Program Setup  
- Typical Measurements <45 seconds.

#### **Container Size Limits:**

- 15" Maximum Bottle Height  
- 10" Maximum Bottle Diameter  
(Limitations are for standard system ONLY;  
contact AVID to discuss larger format motion controls.)

#### **Options:**

- ID "Bore" Gauge  
(Measures finish ID <2.5")  
- Large FOV Optics Package  
(Permits thermal stability testing capability)

#### **Computer / Operating System:**

- Industrial PC in NEMA 2 Enclosure  
- Windows XP Pro O/S

#### **Data Export Method**

- Microsoft Excel (not included)  
- Ethernet Cable to Network

#### **Units:**

MM or Inches.

