

# VCA 3000S Video Contact Angle System

Released April 28, 2004

VCA 3000S	
Syringe Assembly	
<b>Orientation</b>	Vertical
<b>Needle</b>	Straight
<b>Drive mechanism</b>	Motorized
<b>Stepping Motor</b>	1.8 degrees
<b>Syringe head</b>	Tilt back for safe and easy removal of large samples

Syringe Head Assembly of the VCA 3000S tilts back and out of the way for safe and easy loading and unloading of large samples such as semiconductor wafers and CD/DVD disc.



Tilting Syringe Head Assembly



Syringe needles used by the VCA 3000S are off-the-shelf straight needles instead of customized 90-degree-bent needles providing users more choices on needle gauges and lower operating costs.

Sample Platform	
<b>Platform size and shape</b>	12" Circular
<b>Sample size and shape</b>	4", 6", 8", 12" circular Not wider than 12"
<b>Movement along the optical axis</b>	6" by hand sliding with lock
<b>Movement transverse to the optical axis</b>	6" by dial
<b>Vertical traveling distance</b>	2" by dial
<b>Rotating</b>	360 degrees by hand with Planary Bearing
<b>Tilting adjustment</b>	N/A

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<b>Optical Subsystem</b>	1/3" high resolution CCD
<b>Camera</b>	55mm F2.8 4X extension
<b>Lens</b>	User Adjustable
<b>Aperture</b>	Integrated LED ON/OFF control
<b>Top lighting</b>	Multi-segment LEDs Incident-angle adjustable
<b>Back lighting</b>	
<b>Software</b>	
<b>Contact angle calculations and control</b>	VCA-Performa for Windows™
<b>Time-based contact angle analysis</b>	Dynamic-2500
<b>Surface energy calculations</b>	SE-2500
<b>Statistical process control</b>	SPC
<b>Pendant drop for surface tension</b>	PDAST
<b>Dimensions</b>	
<b>Overall length</b>	32"
<b>Min width</b>	12"
<b>Max width</b>	18.5"
<b>Max. height</b>	16.5"
<b>Net weight of platform</b>	47 lb

VCA systems have been designed to provide precise, easy contact angle analysis for the vast majority of applications. However, there may be specific applications with custom requirements. In most cases we can design a solution and retrofit the existing platform to accommodate your specific demands. If you have any questions, comments, or suggestions, please call **AST Products, Inc.** at (978) 667-4500.