

# SURFTENS WH 300

The professional solution for semiconductor technology!



Fully automatic contact angle measuring instrument  
with 3 axis wafer handling robot, loadport for 300 mm  
FOUP and SECS/GEM interface

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## Background

Surface tension of photolithographic materials like resist and developer has a great potential for the photolithographic process itself. For instance, homogeneity of spin coatings, planarization, and adhesion depend directly on surface tension of the materials involved. The SURFTENS WH 300 contact angle meter serves for the measurement of contact angle and surface free energy (SFE) in semiconductor technology and provides the complete functionality, which is required in 300mm wafer fab's. This makes the device unique worldwide

## Main features of SURFTENS WH 300

- 3 axis wafer handling robot
- loadport for 300 mm FOUP
- SECS / GEM interface
- optional bridge tool for 200mm FOUP
- video system for automatic drop shape analysis
- wafer scanner
- centring & notching before measurement
- automatic, software controlled dosing system
- tank for main dosing system (DI water)
- automatic, software controlled refill of main dosing system
- optional second dosing system for other test liquids
- filter fan unit
- optional hotplate for evaporating of water drops
- optional software for resist edge evaluation

### Power supply

- single cable connection to the main power distribution unit of the instrument
- EMO is integrated



## Technical data for contact angle and SFE measurement

- sample size: 300 mm Si-Wafer
- on request: 200mm wafers can be measured
- Position accuracy  $\pm 0.05$  mm in the sample level
- Range of contact angle measurement:  $10^\circ \dots 170^\circ$
- $\pm 0.5^\circ$  measuring accuracy of the video system
- Range of SFE measurement:  $0,01 \dots 2000$  mN/m; resolution: min.  $0.05$  mN/m

For more information please contact us under +49 335 5213894 or by email [info@oeggmbh.com](mailto:info@oeggmbh.com)!

Here you can see a little video of SURFTENS WH 300:  
<https://www.youtube.com/watch?v=whR8E1yTHC8>