

## Condor Sigma

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The Condor Sigma was awarded a Red Dot design award 2013

## Condor Sigma W12

### Ideal solution for 300mm (12 inch) wafer testing

- o Precision shear testing and Cold Bump Pull (CBP)
- o Bump sizes down to 20µm
- o Available with or without loader/unloader
- o XY mapping coordinates key in function
- o Grading run functionality
- o Easy positioning, alignment
- o High resolution cameras with high and low magnifications
- o Fastest throughput of wafer bump testing in the world
- o 500mm X-stage and 370mm Y-stage, throat depth 400mm
- o Integrated report editor and flexible data export
- o Reach 100% of the 300mm wafer without repositioning the wafer on the chuck
- o Blower and vacuum tool cleaning unit
- o Wafer chuck with safety interlocks and 360 degree rotation
- o Wafer carrier mechanically locked when vacuum is turned on
- o Complies with JEDEC JESD22-B117A, JEDEC JESD22-B115 and JEITA EIAJ ET-7407 standards
- o Also suitable for 200mm (8 inch) and other wafer sizes
- o 24 bit ADC resolution, 10kHz sampling frequency
- o Compatible with Revolving Measurement Unit (RMU) and single heads
- o Unparalleled 0.075% accuracy



The Condor Sigma W12 is the ideal solution for 300mm (12 inch) wafer testing



Sigma W12 Wafer chuck

The Condor Sigma W12 is specifically designed for precision shear testing and Cold Bump Pull (CBP) on wafer or at wafer level. The system has the largest X/Y and fastest stages available in the industry, to reach all positions on the wafer with the tool and cameras in record speed. The 30nm resolution linear encoders ensure accurate positioning.

The Condor Sigma automation features ensure rapid testing of randomly selected positions on the wafer. Fiducial mark recognition can guarantee a high

repeatability. Cameras also assist the operator to perform grading. The grading run functionality enables quick grading after a sequence of tests.

The Condor Sigma W12 can be equipped with up to two perpendicular cameras and a camera mounted on a trinocular microscope. We recommend using a low and a high magnification camera for best positioning and grading. A second monitor can show (live) camera images for ease of operation.

Compatibility with the XYZTEC [Revolving Measurement Unit \(RMU\)](#) ensures that you can switch between test types and tools with the press of a button. Unused sensors (cartridges) are protected within the machine.

Relative position	
X	0.0 [µm]
Y	0.0 [µm]
<input type="checkbox"/> Reverse	<input type="checkbox"/> Reverse
<b>Go</b>	

The Condor Sigma W12 software allows the operator to quickly and accurately jump to the next test point

0,5µm repeatability.

The XY mapping function enables the operator to quickly and accurately move from position to position on the wafer by keying in a relative move. Naturally, the Condor Sigma W12 is equipped with 30nm resolution linear encoders, ensuring

## Condor Sigma brochure

Click here to download the [Condor Sigma brochure](#) or the [Condor Sigma Lite brochure](#) or the [Condor Sigma Vision brochure \(PDF\)](#).

## Test types

- o ball shear / solder ball shear
- o bending
- o cavity shear
- o cold bump pull
- o creep
- o die shear
- o fatigue
- o high speed impact
- o lead integrity / micro torsion
- o lid torque
- o overhanging die
- o passivation layer gold ball shear
- o ribbon peel
- o ribbon pull
- o smd shear
- o spring rigidity
- o stud pull
- o total ball shear / zone shear
- o tweezer pull
- o vector pull
- o wedge and ribbon shear
- o wire pull

## Representatives

To find your local representative, please select a region:

- o Americas
- o Europe, Middle East, Africa
- o Greater China
- o Japan
- o Asia / Pacific

## Specifications

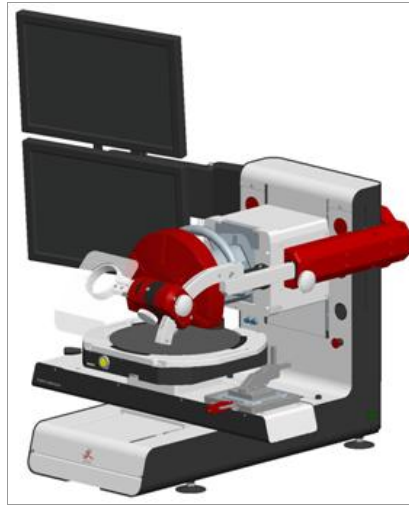
Click here to [check the specifications](#) and see whether the Sigma W12 is the right system for you, or if you should select a different Condor system.



Condor Sigma W12 sideview

### Contact us

Did we catch your attention? Please **contact us** for more information, to request a demonstration or a quotation.



Condor Sigma W12 with calibration jig fitted

#### [www.XYZTEC.com](http://www.XYZTEC.com)

XYZTEC is the technology leader in bond testing worldwide.

The Condor *Sigma* is the most advanced bond tester on the market.

#### [shop.XYZTEC.com](http://shop.XYZTEC.com)

The new XYZTEC consumables webshop provides our customers with a comprehensive, online platform for ordering a wide range of wire hooks, shear tools, tweezer tips and other items.

#### **XYZTEC Netherlands**

J.F. Kennedylaan 14-B  
5981 XC Panningen  
Netherlands ([map / route](#))  
Tel: +31-77-3060920  
Fax: +31-77-3060919  
[sales@xyztec.com](mailto:sales@xyztec.com)  
[support@xyztec.com](mailto:support@xyztec.com)

Find your local representative

#### **XYZTEC Germany**

Schäferei 18  
06237 Leuna  
OT Günthersdorf  
Germany ([map / route](#))  
Tel: +49-34638-666690  
Fax: +49-34638-666695  
Cell: +49-172-3272991  
[dirk.schade@xyztec.com](mailto:dirk.schade@xyztec.com)

#### **XYZTEC Massachusetts**

36 Balch Avenue,  
Groveland, MA 01834  
USA ([map / route](#))  
Tel: +1-978-880-2598  
Fax: +1-978-373-4292  
[tom.haley@xyztec.com](mailto:tom.haley@xyztec.com)

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