



Fully automated bond tester

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  - Simac Techniek NV
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  - P3: What is Possible with Modern Automation?
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  - P7: Automatic failure mode analysis
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#### **Other offices**

- Germany  
- Taiwan  
- Thailand  
- United Kingdom  
- USA: California  
- USA: Massachusetts  
- Distributors

#### **Bond testers**

- Condor *Sigma*  
- Condor *Sigma Lite*  
- Condor *Sigma W12*  
- Condor *150HF*

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- Wire Pull Tool design and quality
  - Wire Pull Alignment
  - Wire Pull Loop height measurement and work holder
  - Wire Pull Variants: vector pull, gull wing leads
  - Wire Pull Test method settings
  - Wire Pull Failure modes
  - Wire Pull Force calculations
  - MIL-STD-883 2011.9 bond strength (bond pull test)
  - MIL-STD-883 2023.7 nondestructive bond pull
  - MIL-STD-883 2023.7 Appendix A
  - MIL-STD-883 2004.7 lead integrity
  - MIL-STD-883 2004.7 A - Tension
  - MIL-STD-883 2004.7 A1 Lead braze integrity
  - MIL-STD-883 2004.7 B1 Bending stress
  - MIL-STD-883 2004.7 B2 Lead fatigue
  - MIL-STD-883 2004.7 C1 Lead torque
  - MIL-STD-883 2004.7 C2 Stud torque
  - MIL-STD-883 2004.7 D Solder pad adhesion
  - MIL-STD-883 2004.7 E Lead plating integrity
  - MIL-STD-883 2024.2 Lid torque glass-frit-sealed
  - MIL-STD-883 2019.9 Die shear strength
  - MIL-STD-883 2031.1 Flip chip pull off test
  - How to: Tweezer Pull
  - Tweezer Pull Tweezer Design
  - Tweezer Pull Alignment and Failure Modes
  - Tweezer Pull Ribbon Pull and Peel
  - Tweezer Pull Copper Pillar
  - Tweezer Pull Stud Pull and Pick and Place
  - External sources
  - Semiconductor alliances
  - Semiconductor engineering
  - Process control
- Careers (.NET Developer, Service Engineer)
  - Case studies and references
    - Danfoss
    - Fully automated wafer testing
    - Heraeus rates XYZTEC as excellent supplier
    - Large heater stage on Condor Sigma W12
  - Research partners
  - Contact us
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  - Site map

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## News

- News archive
  - Successful ESTC Conference in Dresden, Germany
  - LEGO® for Nepal sponsored by XYZTEC
  - Visit us at SMT Hybrid Packaging Nuremberg
  - Smart LED and Solar panels for XYZTEC head office
  - XYZTEC workshop at IMAPS UK
  - ODEOM shows Condor Sigma in Istanbul
  - Semicon China under way
  - Condor Sigma W12 at Semicon Korea
  - Condor Sigma stars in Audi Tech Day video
  - Raysun to represent XYZTEC in China
  - Award for First Technology China
  - XYZTEC granted subsidy for further accuracy improvements
  - Presentation at CSPT 2017 by Bob Sykes
  - Condor Sigma in São Paulo, Brazil
  - Fully automatic lead frame tester introduced at SMT Hybrid Packaging
  - Semicon Penang 2017 successful
  - Pizza and Go cart racing at K1 Speed in Northern CA
  - Visit us at Semicon China
  - Job opening for Junior Mechanical Design Engineer [closed]
  - Successful seminar in Russia with Sovtest
  - Market leading Condor Sigma bond tester at TPCA Taiwan
  - Automation features draw attention at Semicon Taiwan 2016
  - HTMG represents XYZTEC in South America
  - Bob Sykes speaks at China Semiconductor Packaging Test Symposium (CSPT) [UPDATED]
  - Purchase wire hooks, shear tools, tweezer tips by PayPal
  - SMT 2016 all about automation
  - Annual sales and service event in Bangkok big success
  - Come visit us at Semicon China
  - HiSOL new distributor in Japan
  - Cellphone display LCD driver IC testing
  - ISO-Dynamique and Axend represent XYZTEC in Malaysia, Singapore, Thailand, Indonesia and Vietnam
  - Wire detect functionality popular at Productronica
  - How to: Cold Bump Pull
  - Condor Sigma draws attention at Semicon Taiwan
  - Exciting sales and service meeting in Bangkok
  - Bond Test Measurement Accuracy
  - Condor Sigma software now available in Vietnamese
  - Automatic wire detection draws attention at SMT 2015

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- SST joins XYZTEC in Taiwan and mainland China
- More on loop height testing
- BaiTech to represent XYZTEC in Southern California, Tijuana Mexico
- Copper pillar testing
- Subscribe to the XYZTEC newsletter
- Increase your knowledge about bond testing and visit a bond testing seminar
- Successful distributor training during XYZTEC week
- Highlighted: Condor Sigma W12 for 300mm wafer testing
- XYZTEC shows full automation on the Condor Sigma at the SMT 2014 in Nürnberg
- Advances in tweezer pull testing
- Maestro payment method accepted in webshop
- XYZTEC launches webshop for consumables
- ODEOM new distributor for Turkey
- Condor Sigma attracts attention at Productronica
- XYZTEC Sales Director Dirk Schade joins the IMAPS board
- Antycip Technologies new distributor for France, Spain, Portugal and North Africa
- Busy IMAPS show in Orlando, Florida
- Creep test
- SMD shear test
- Spring rigidity test
- New Condor Sigma videos available
- Condor Sigma celebrated at Red Dot Gala
- Visit us at PCIM Asia in Shanghai
- A bond tester that can grow with your company
- Condor Sigma wins Red Dot design award 2013
- Condor Sigma draws attention at Semicon China
- Condor Sigma Vision solutions
- 3H Corporation new distributor in Korea
- Heraeus: XYZTEC class A supplier
- Crockett Southwest new XYZTEC sales partner in Texas, Oklahoma, Louisiana and Arkansas
- GIO Award for Condor Sigma
- Alternative Testing Methods for Electronic Assemblies
- USB Tweezers: a unique electrically actuated micro grippers solution
- NW Test Solutions to represent XYZTEC in Pacific Northwest
- Condor Sigma nominated for European Aluminium Award 2012
- Visit us at Semicon Taiwan 2012 in Taipei
- New uni-axial bending test for ultra-thin die
- Busy first show for Tom Haley
- XYZTEC welcomes new sales manager for United States and Canada
- Condor Sigma at Dutch Technology Week 2012
- Condor Sigma attracts attention on ECTC 2012
- High interest in self-alignment tool on Fraunhofer Technology Day

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- Introduction of Sigma at Semicon Korea
- Condor Sigma in Japan
- Interelec Electronics AG switches to XYZTEC
- Successful seminar at Tianjin University on Packaging High-temperature Electronics
- Condor Sigma: Performance and Flexibility
- New test method for mechanical strength evaluation of solar cell solder joints
- Case studies: Danfoss, flexibility and deep access
- Fully automated LED wafer testing
- Employees donate to Japan relief effort
- XYZTEC participates in Solar Module Value Chain for International BIPV Concepts
- XYZTEC proudly presents its Korean website
- Aubert Dupont speaks at IEEE CPMT 2010
- XYZTEC launches new website
- Charity event for RETT syndrome big success
- Technical Informer: USB Tweezers
- XYZTEC introduces Condor EZ: the next generation in bond testing
- Technical Informer: Solar Cell Ribbon Peel Testing
- Bob Sykes joins XYZTEC

- RSS feed
- Twitter @bondtesters
- Weibo XYZTEC????
- YouTube bondtesters
- Facebook @XYZTEC
- LinkedIn
- Google+
- Newsletter
  - Is Fully Automatic Bond Testing Possible?
  - Advances in Thin, 3D and MEMS Die Bond Strength Testing
  - Shear testing copper pillar
  - Fracture strength of thin wafers and die
  - Centralized database for enhanced security and SPC options
  - Full Automation with Improved Pattern Recognition, Fiducial Marks Analysis, Wire Detect and Failure Mode Analysis
  - Coating and film testing
  - Latest software release enables automatic grading
  - Vision enhanced materials testing
  - XYZTEC makes lid pull easy
  - Condor Sigma W12 with large heater stage
  - How to: Wire Pull
  - Get 10% off your next tools order
  - Pull testing bumped wafers
  - SMD gull wing leads testing

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- Automation: matrix bond testing made easy
- Fully integrated solution for automated wafer testing
- In bond testing, size does matter
- XYZTEC goes from strength to strength
- Automatic wire detect
- Highly reproducible stud pull tests are possible
- What is the quality of your coatings?
- Loading samples has never been so easy
- Axis accuracy of  $\pm 1\mu\text{m}$ : essential for automatic bond testing
- Increase your bondtesting throughput
- USB Tweezers
- Analyze not only forces but also distances on your product
- Technology leader XYZTEC raises the bar in bond testing once again with new software release
- Why all bond testers should have an RMU
- Copper pillar testing
- Is process verification important to your business?
- Fully automated bond tester
- Ideal solution for 300mm (12 inch) wafer testing

## Condor Sigma

- Condor Sigma Lite
- Condor Sigma W12
- Automation
- Ergonomics
- Revolving (RMU) and single heads (PMU, SMU)
- Sensor modules
- Tweezers
  - CBP Jaw Cleaner
  
- Work holders
- Software / Vision
  - Vision
  
- Calibration
- Specifications

## Condor 150HF

- Ergonomics
- Revolving Measurement Unit (RMU)
  - Comparison with single heads

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- Pull & Push Measurement Unit
- Shear Measurement Unit
- Impact Measurement Unit
- Tweezers
- Work holders
- Software
- Specifications
- Condor EZ, 70, 100, 150, 250

## Test types

- Bending testing
- Cavity shear testing
- Cold Bump Pull (CBP) testing
- Connector Test testing
- Copper pillar testing
- Creep test testing
- Die shear testing
- Fatigue testing
- Gold ball shear and Solder ball shear testing
- High speed impact testing
- keypad testing
- Lead integrity / Micro torsion test testing
- Lid pull testing
- Lid torque testing
- Loop height test testing
- Overhanging die testing
- Passivation layer gold ball shear testing
- Probe test testing
- Ribbon peel testing
- Ribbon pull testing
- Scratch test / coating test testing
- SMD Gull Wing Leads testing
- SMD shear testing
- Spring rigidity testing
- Stud pull testing
- Total Ball Shear (TBS) / Zone shear testing
- Tweezer pull testing
- Vector pull testing
- Wedge shear testing
- Wire pull testing

## Markets & solutions

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- Aerospace
- Automotive
- Hybrid and substrate
- LED
- Medical devices
- PCB assembly
- Power devices
- Research & Development
- Semiconductor
- Solar

## Sales & support

- North and South America
- Europe, Middle East, Africa
- Greater China
- Japan
- Asia, Pacific

## Downloads

- XYZTEC software
- External software
- Manuals
- Grading library
- Brochures and flyers
- Articles and papers
- Press releases

## Events

- Bond testing seminars
- Requests
  - Testing & Control Russia
  - Radel 2018 Russia
  - Adhesion & Joining Expo
  - Semicon Japan

## Shop

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- Sigma wire hooks
- Sigma shear tools
- Sigma sleeves
- Classic wire hooks
- Classic shear tools
- Classic sleeves
- USB Tweezers tips
  - Checkout



## About XYZTEC

- Our team
- Patents
- Simac group

## News

20 Sep

Successful ESTC Conference in Dresden, Germany

29 Aug

Is Fully Automatic Bond Testing Possible?

11 Jul

LEGO® for Nepal sponsored by XYZTEC

05 Jun

Visit us at SMT Hybrid Packaging Nuremberg

20 Apr

Smart LED and Solar panels for XYZTEC head office

18 Apr

XYZTEC workshop at IMAPS UK

16 Mar

ODEOM shows Condor Sigma in Istanbul

15 Mar

Semicon China under way

31 Jan

Condor Sigma W12 at Semicon Korea

04 Dec

Condor Sigma stars in Audi Tech Day video

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