

# Condor Sigma

Performance and Flexibility



### Put it to the test!

With 10+ years in house experience, XYZTEC takes bond testing to a new level with the Condor *Sigma*. It uses the best of established technology together with innovation to set the new standard. Its broad specifications ensure it has the capability to perform all commonly used industry tests as well as special and challenging applications.

Current users of bond test equipment will find that the Condor *Sigma* system will provide an easy transition from their existing process to the state of the art Condor *Sigma* platform. Performance is without a doubt best in class, but do not take our word for it. Try it for yourself, and put it to the test!



Compatibility: use your existing work holders with our shuffle plate.







The Condor *Sigma* software supports various authorization levels. Shown here is an easy to learn operator screen.



Powerful statistical process control and clear graphs give complete control of your production process to the engineer.

## **Specifications**

Force sensors	Revolving measurement units (up to 6 sensors) Single measurement units (1 sensor) Ranges 10 gf, 100 gf, 1 kgf, 10 kgf, 100 kgf, 200 kgf Maximum Shear force Maximum Pull and Push force Accuracy Resolution Minimum landing force Correlation with other testing systems Digital correction of temperature and creep Calibration weights OIMI class M1 or NIST class 1	200 kgf* 100 kgf* ±0.075 % 24 bit 2.5 gf	
Stages	Resolution of built in optical linear encoders X travel Z Travel Axis (X,Y & Z) speed Hook concentricity Tool rotation accuracy	30 nm 370 mm 168 mm 168 mm 50 mm/s ±10 μm ±1 °	
Frame	Foot print X Foot print Y Height Weight	620 mm 558 mm 608 mm 85 kg	
Controls	Ergonomic layout to SEMI S8 Microscope moves in focal arc and swivels to side for easy access Microscope adjustable in X & Y and through complete Z travel Keyboard drawer Two ergonomic joysticks with 6 buttons each LED illumination Onboard tool storage		
Work holders	Maximum flexibility for large sample sizes Quick release, high force and positional accuracy interface Compatible with previous XYZTEC and competitor tooling		
Software	Supports Microsoft Windows 7 <sup>TM</sup> , 32 and 64 bit systems Easy to learn intuitive graphical user interface Minimum number of mouse clicks Customizable screens, optimized for wide and touch screens Integrated report editor and data export Easy data sorting, grouping and filtering Integrated SPC and system GR&R analysis Multiple languages, multiple user network environment Export to XLS, DOC, PPT, PDF, XPS, CSV, XML, DBF, etc.		
Services Electric 110-240V single phase no air required			

Specifications are subject to change without prior notice. \*XYZTEC also offers the Condor 150-HF for testing up to 500 kgf.



Six sensors RMU, up to 200 kgf: changing cartridges manually no longer required.



Ouick change release: Change work holders in seconds.



Ergonomic joysticks: Full control at your finger tips.

## **Performance and flexibility**

The Condor Sigma is the most advanced bond tester on the market, combining the unique strengths of the Condor series with the latest technologies and innovations. Whether you need a dedicated or multipurpose bond tester, the Condor Sigma is the best choice featuring unparalleled 0.075% accuracy, the best ergonomics, highest throughput, maximum flexibility and the lowest cost of ownership.

## Use existing tools and work holders

This system is designed to be compatible with the most commonly used work holders and tooling, that you may already have in stock. The compatibility modes ensure consistency in your measurement results across machines. Equipped with the most powerful intuitive software, operators can quickly learn to use the Condor Sigma alongside your existing equipment and procedures.

## **Revolving Measurement Unit**

XYZTEC is well known for many innovative bond testing solutions. The Revolving Measurement Unit (RMU) is one of the results of XYZTEC engineering team utilizing customer feedback. Now the capability of the RMU achieves up to 200 kgf shear and 100 kgf pull and push. The flexible configuration allows 1 to 6 sensors enabling fully automatic and manual testing. Compared to changing cartridges manually, the RMU eliminates warm up time and greatly reduces the risk of sensor damage.

## **Condor** Sigma Put it to the test!





maximize your tests per minute



Easy sample loading: Retractable microscope

## Built in image capture and automation camera

The standard configuration contains a perpendicular automation camera at a small offset from the test point with a choice of two magnifications and optical resolutions down to 1.5 µm. The Condor *Sigma* can be equipped with a maximum of three separate cameras mounted in different positions to offer the best range of imaging possibilities. For automation, fiducial mark recognition is available.



## Soft landing and high resolution A wide variety of tests is possible using the Condor *Sigma* with forces ranging from less than 1 gf to 200 kgf. Digital temperature correction and the world's highest resolution of 24 bits contribute to the most reliable and repeatable measurement results.

The shear landing force is programmable to a minimum of a few grams. Even at higher speeds a soft landing is possible. Featuring 50 mm/s the X, Y & Z axes are very quick and power up in any position.

## Modular and open design

All sensor modules are interchangeable and fit any single heads and the Revolving Measurement Unit. Fully calibrated and tested, each sensor module can be removed and replaced within a few minutes.

The open frame design and large stroke for all three stages offer the capability to handle the widest range of sample sizes with little or no special tooling. High accuracy quick release work holders and measurement units ensure rapid sample loading and production setup.

Technology leader in bond testing worldwide