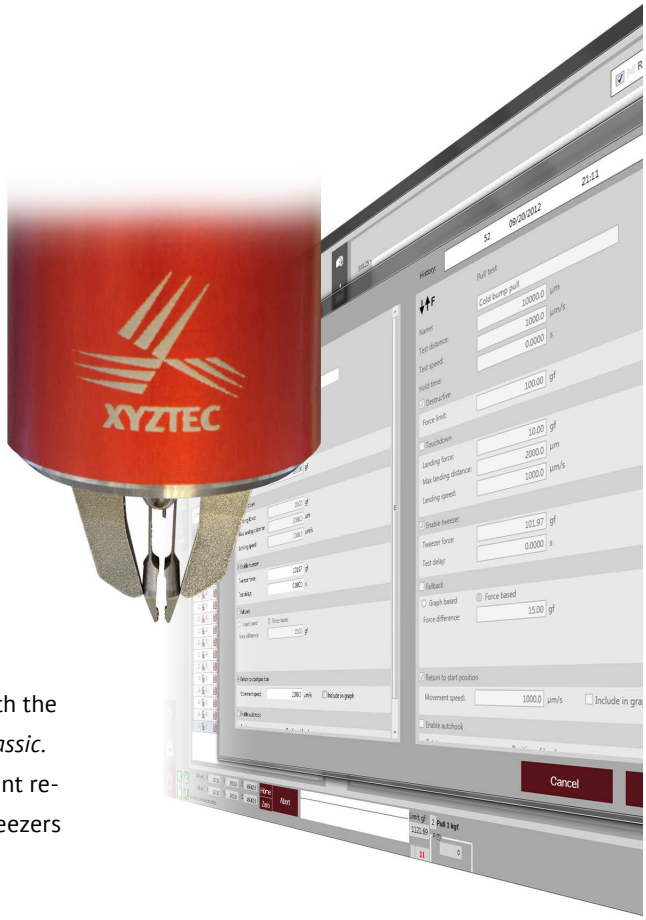
XYZTEC

XYZTEC Tweezer Solutions

USB Tweezers



Electrically actuated

XYZTEC offers a unique electrically actuated micro grippers solution: USB Tweezers. The features include a powerful software, fully programmable closing force and positioning, a built-in adjustable light source and easily exchangeable tips. Designed especially for solder ball pull, thick wire pull, thin wire pull and ribbon peel test.

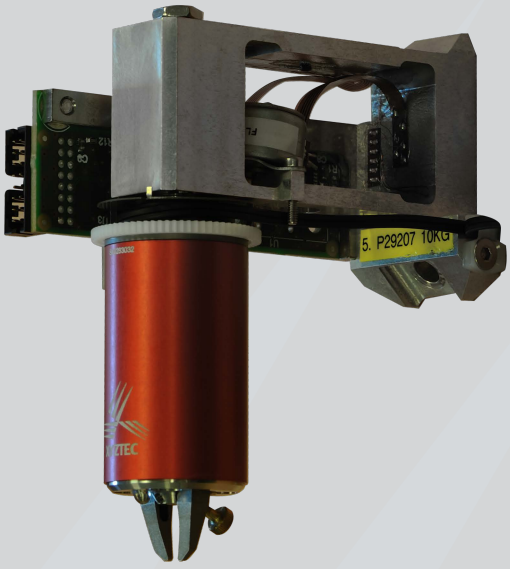
Virtually any application

The system is designed to be compatible with the commonly used Condor series: *Sigma* and *Classic*. This ensures consistency in your measurement results between different testers. The USB tweezers are fitted to a standard pull sensor.

This sensor can also be used to sense when the tips of the jaws touch your sample and can be used to land with a programmable force. However, the USB Tweezers are a stand-alone device and can be used with other systems and virtually any application.

Intelligent jaws

The gripping jaws (tweezers with tips) are driven by a built-in closed loop 3-phase brushless micro drive to accurately open or close. The jaw actuators incorporate a strain gauge to precisely measure and control the gripping force.



USB Tweezers integrated into Condor *Sigma* sensor module

Specifications

Maximum clamping force	8 kgf
Adjustable clamping force	0-8 kgf
Maximum pull force	10 kgf
Maximum sample width	1.2 mm
Typical closing speed	300 µm/s
Average closing time	1 s
Adjustable LED brightness	0-100 %
Rotation stroke	± 90 °
Programmable closing force	Yes
Programmable opening position	Yes
Easy exchange of tips	Yes
Interface	USB
Compatible with Condor *Sigma*	Yes
Compatible with Condor *Classic*	Yes
Supports Microsoft Windows XP, Vista and 7, 32 and 64 bit systems	

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The gripping force can be programmed and will be maintained throughout the test with a force control loop. Similarly, the position of the jaws is known and controlled via the closed loop micro motor. This also enables programmable control of the closing and opening positions.

XYZTEC USB Tweezers gripping a solder ball

Exchange tips within seconds

A thumbscrew allows for quick and easy exchanging of tips. There is a standard range of tips to suit many different applications, for example gold wire pull or aluminium ribbon peel. Custom tip designs for application specific requirements are also possible.

Built-in LED lighting

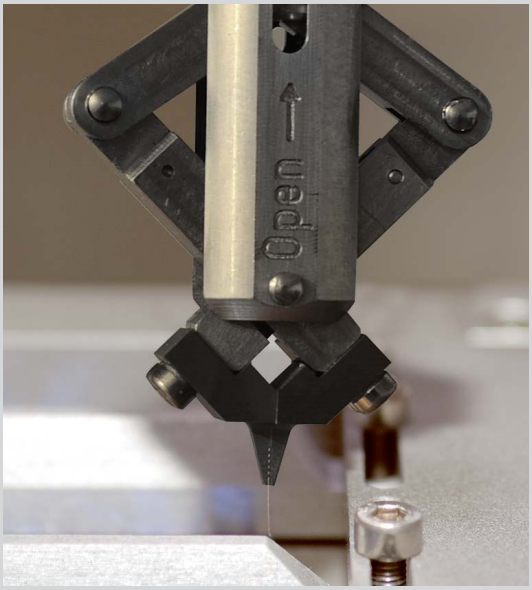
The tweezers come complete with built-in high intensity LED light source. The power and control of the tweezers is delivered by one USB connection to the machine or computer.

Other innovative solutions

Mechanically actuated tweezers

The XYZTEC mechanically actuated tweezers are developed for high force pull tests. Tests with forces up to 500 N / 50 kgf can be performed. Typical applications are pull tests on electrical connections like studs, connectors or even pulling off entire devices. The tool can handle objects up to 3 mm thickness.

The compact design can handle up to 500N although the maximum force is limited by the type of jaws used. The tweezers initially generate a small gripping force that increases during a test under the action of the applied load. Jaws have to be matched to the type of test. For this there are a number of standard jaws available but customized jaws can also be provided.



XYZTEC Mechanically actuated tweezers during a peel test

Pneumatically actuated tweezers

Especially for the Condor *Sigma* XYZTEC also offers pneumatically actuated tweezers. These are designed for the most commonly used cold bump pull applications and are compatible with other solutions on the market.

Specifications

Maximum clamping force	100 kgf
Maximum pull force	50 kgf
Please contact us for further specifications	

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