

## Condor 150-4 HF for forces up to 500 kgf

XYZTEC has developed a new test system called the **CONDOR 150-4HF** which is capable of measuring forces up to 500 kgf. The new **CONDOR 150-4HF** utilises a special 360° rotation to support a fully automated shear test on all critical positions. Also an optional Z-stage for push/pull forces up to 500 kgf is available. This makes the new **Condor 150-4HF** highly qualified for testing IGBT power modules.

The travel distance is 120 mm for the X,Y stage and 190 mm for the Z stage. An optional quick mount assembly is able to support up to 500 kgf shear/push/pull testing. Included with the **Condor 150-4HF** are the special mounting table for the work holder, 2 joysticks and Windows based software with automation. The **Condor 150-4HF** uses the standard XYZTEC measurement unit interface.

### Operator safety:

The higher forces require more extensive safety precautions. Our **Condor 150-4HF** system is fitted with an optional safety cover which also offers both flexibility and ease of use. This safety cover is fitted with independent safety switches. When the cover is opened it is supported by two dampers on each side. This makes it easy to exchange a tool, test sample or the work holder. The safety switches ensure that the tester will stop testing as long as the cover is not closed.

### Condor 150-4HF base:

**Condor 150-4HF** base with very rigid support on the left and on the right side. The Y-stage has also been equipped with a high force linear guide that is qualified for 500 kgf shear testing.

### Optional Z-stage:

Z-stage motor assembly for **Condor 150-4HF**. This option is required for push/pull tests up to 500 kgf.



### Special measurement units:

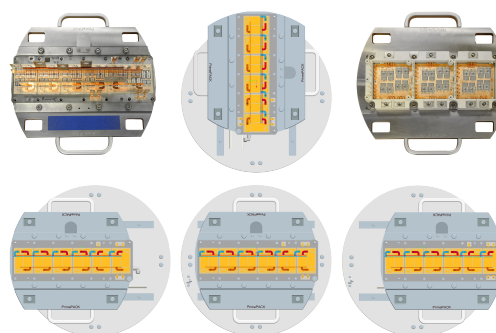
Shear Measurement Unit (SMU) 500 kgf. This unit is developed for shear forces up to 500 kgf.

Lift Measurement Unit (LMU) 500 kgf. This unit is developed for push/pull forces up to 500 kgf.

For both measurement units tools are not included.

For high forces customized tools are required. Customized work holders are also needed for forces above 200 kgf and depend on the type of samples to be tested.

XYZTEC also offers a special self aligning shear tool for die shear testing.



Special rigid rotation workholder with a mounted IGBT in multiple positions during automation.



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## Product information:

Ordercode	Product description
XPC031504	CONDOR 150-4HF base with 500 kgf Y-stage
XPC013003	Z stage motor assembly for CONDOR 150-4HF for 500 kgf push and pull testing
XMS011000	SMU Shear Measurement Unit 500 kgf
XML011000	LMU Pull/Push Measurement Unit 500 kgf
TOP09xxxxx	Hook or probe for high forces (maximum force depends on tool)
TOS09xxxxx	Shear tool for high forces (maximum force depends on tool)

## Specifications:

<b>XPC031504: CONDOR 150-4HF base</b>	
• Dimensions	W 550 x D 582 x H 595 mm
• Weight	95 kg
• Axis travel	X, Y 120 mm, Z 190 mm
• Axis Resolution	1,0 µm
• Axis speed	5 mm/s
• Maximum force	500 kgf Y-stage, 100 kgf X,Z stages, optional 500 kgf Z-stage
• Rotation work holder	5 bar compressed air Festo Pun 6
• Rotation	90° rotation left and right
• Mechanical Interface	10x, for mounting LCD, microscope, camera, etc.
• Accessories	Standard XYZTEC accessories
• Interface	1 x USB interface 2 x 9 pins joystick connector 1 x 3 pins IEC with integrated On/Off switch for main power
• Software	Standard XYZTEC Condor software including Macro Editor
<b>XPC013003: Z stage motor assembly for CONDOR 150-4HF</b>	
• Axis travel	Z 190 mm
• Axis Resolution	1,0 µm
• Axis speed	5 mm/s
• Maximum force	500 kgf
<b>XMS011000: Shear Measurement Unit (SMU) 500 kgf</b>	
• Supported force ranges	31,25 kgf / 62,5 kgf / 125 kgf / 250 kgf / 500 kgf
• Tool interface	12 mm. All tools for high forces have an interface of 12 mm.
• Measuring sensor accuracy	0,1 %
• Measurement unit interface	Standard XYZTEC measurement unit interface
<b>XML011000: Lift Measurement Unit (LMU) 500 kgf</b>	
• Supported force ranges	31,25 kgf / 62,5 kgf / 125 kgf / 250 kgf / 500 kgf
• Tool interface	M6 thread. All tools for high forces have a M6 thread interface.
• Measuring sensor accuracy	0,1 %
• Measurement unit interface	Standard XYZTEC measurement unit interface



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