



### **ETEL S.A.**

Zone Industrielle  
2112 Môtiers  
Switzerland

T +41 32 862 01 00

[etel@etel.ch](mailto:etel@etel.ch) - [www.etel.ch](http://www.etel.ch)



# Stacked Platforms

VULCANO2

# **ETEL**

version 1.0 - 05/20 - subject to modifications without previous notice

# **ETEL**

## VULCANO2 STACKED PLATFORMS

**VULCANO2**  VULCANO2 is a gantry stacked-axes architecture based on mechanical bearing coupled to high-end optical encoders. Use of ETEL renowned iron-core motors, along with innovative design principles, allows reaching high dynamics at much improved geometrical and motion performance levels.

With focus on easing semiconductor applications, the platform remains a match to all diverse markets and needs requiring solutions for higher dynamics; in fact even its best in class footprint excels to maximize its overall Cost of Ownership value proposition. Customers, aiming to reach higher throughput, duty cycles or to serve heavier payloads with no loss of repeatability or of accuracy, can confidently adopt a standard VULCANO2 or a derived customized solution.

### VULCANO2 XY stacked platform

The VULCANO2 XY platform is made up of an ironcore linear axis (Y axis) stacked on an ironcore gantry design (X1 and X2 axes).



VULCANO2 XY stacked platform

### VULCANO2 XYT stacked platform

The VULCANO2 XYT platform is composed of the standard VULCANO2 XY and the DXR+ compact design rotary module.



VULCANO2 XYT stacked platform

VULCANO2 represents also a perfect solution to all use cases where dynamics, duty cycles and payloads are not so stringent, though positioning accuracy must be established for very long times: delivering several hours of  $\mu\text{m}$ -level navigation accuracy is no longer a dream but a solid reality from this new offering from ETEL.

## MAIN SPECIFICATIONS

	X1-X2 (bottom)	Y (upper)	THETA
Total stroke	365 mm	355 mm	Infinite
Maximum speed	1.2 m/s	1.2 m/s	32 rad/s
Maximum acceleration	25 m/s <sup>2</sup>	25 m/s <sup>2</sup>	126 rad/s <sup>2</sup>
Position accuracy	$\pm 1 \mu\text{m}$	$\pm 1 \mu\text{m}$	$\pm 3 \text{ arcsec}$
Position stability	$\pm 2 \text{ nm}$	$\pm 2 \text{ nm}$	$\pm 0.02 \text{ arcsec}$
Bidirectional repeatability	$\pm 250 \text{ nm}$	$\pm 250 \text{ nm}$	$\pm 2 \text{ arcsec}$

## PRODUCT HIGHLIGHTS

- Compact footprint
- Payload up to 80 kg
- Nanometer level position stability
- High dynamics
- Excellent bidirectional repeatability and position stability
- ISO 2 clean room compatibility

## TYPICAL APPLICATIONS

- Wafer Process Control applications such as Overlay Metrology, Critical Dimension and Thin film Metrology
- Back-end: flip-chip processes made on large panels/substrates

### VULCANO2 PLATFORMS

Both VULCANO2 XY and VULCANO2 XYT can be integrated with ETEL's QuiET Active Isolation System to reach ultimate performance.

