# SPECTRUM II The entry into Zeiss Technology





### **The Structure**

Bridge type machine: classic and stable

**CMM Technology by Carl Zeiss** 

Available in different sizes

Available with Zeiss sensor technology

Good accessability due to optimized machine base



ZEISS









**Protective housing covers** 

**Ceramic bridge elements** 

CNC drives in all axes

Available with Zeiss sensor technology

Easy-to-use dual joystick control panel with display for motorized control

Earth quake hardened support design

Compact base for small footprint and plenty of space for measuring while seated

# **Measuring Range and Accuracy**





#### X/Y small size

- 700mm/700mm
- 700mm/1000mm

### Z Axis:

• 600 mm

•2.1µm+L/250 (VAST XDT)

•2.4µm+L/250 (TP20)

## **Zeiss Probing System- RDS C5**





RDS-C5 lateral swivel axis provides advantages over articulating joints with front-to-back and lateral tilt axis; frontto-back and lateral tilt range of —**180**°, large measuring range, rotation increments of **5**°, CAA correction for automatic calibration of all **5,184** angular positions for contact sensors.





### **Renishaw Sensor Fits To Your Needs**





Entry	Performance
Manual Sensor	Swivel Head by CNC Drive
MH20i	<b>RTP 20</b>
Angle Step: 15°	Angle Step: 15°
A Axis: 0° ~ 90°	A Axis: 0° ~ 90°
B Axis: +/- 180°	B Axis: +/- 180°
Max. Extension Bar: 135mm	Max. Extension Bar: 168mm
Repeatable Positions: 168	<b>Repeatable Positions: 168</b>
步距角: 15°	步距角: 15°
A 轴: 0°~90°	A 轴: 0°~90°
B 轴: +/- 180°	B 轴: +/- 180°
最长接长135mm	最长接长168mm
168个旋转位置	168个旋转位置

### **SPECTRUM Entry: Manual Sensors – MH20i**





Step: 15° A axis: 0° ~ 90° B axis : +/- 180° Extension Bar 135mm Max. 168 repeatable positions

### **SPECTRUM Performance: RTP 20**



### Movement of swivel head by CNC drive system of machine full automatic



Step: 15°

A axis: 0° ~ 90°

B axis : +/- 180°

Extension Bar 168mm Max.

**168 repeatable positions** 



## **Integrated Controller Solution**







Integrated C99L controller and accessible air filter system

Easy access to and maintenance of sensor controls

No external cabling / control cabinets

# **The Control Panel**



#### Simple and easy to use:

- New Standard control panel for motorized control
- Speed control for CNC measuring operations
- LCD display for coordinates, stylus, etc.

#### **Practical:**

- Maintenance-friendly design
- Joysticks are shifted to top of panel for better usability

### Safe:

 Joystick security unlock buttons and locking state LEDs



### **Precision – Scales.**

### ZEISS glass ceramic scales with patented scale bearings

- Scales virtually without thermal expansion
- Well-thought-out bearings for reliable measured values
  Clamped bearings
- Clamped bearings
- => Stationary zero point





### Precision determined by:

tension and friction-free scale bearings









## **Calypso – Intelligent Motion Processor**





## Accuracy of machine





#### **CMM - Performance track**

## Arguments

Core competence

### One ZEISS metrology world



Controller C99 **ZEISS Sensors CALYPSO**  CAD based software tailored to each ZEISS CMM VAST XT gold, VAST XTR gold, Simple Programming scanning capability as standard (VAST gold), VAST XXT, XDT, low energy consumption Object oriented software ViScan, LineScan Own software development Renishaw sensors implemented Zeiss Air bearings **ZEISS** scales **ZEISS** Probes and Fixtures tailored for each demand patented scale fixturing Tailored to separate machines • glass ceramic needs no fast delivery Own patented technology · from small parts to very large parts temperature compensation • Less air gap – less air consumption

