

# CONTOUR MEASUREMENT SYSTEM CV-EF150E/EF150ED™

*Contour and form measuring system*

- High-end contour and form measuring system
- Pick up/down range 200mm manual (CV-EF150E)  
Pick up/down range 200mm motorized (CV-EF150ED)
- Digital error compensation to compensate stylus arc movement
- 45° tilting mechanism
- Synchronization control between pick-up movement and recorder
- Selectable measuring direction to save workpiece setting time
- Thickness and comparative measurements can be easily done
- Perfect safety and warning functions such as:  
stylus slowdown mechanism, overload stopping function, upper-limit warning buzzer



## Technical specifications

Accuracy	Z : 0.1%/5mm, X : 0.2%/5mm
Measuring range	Z: 50mm, X:100mm
Resolution	0.1µm in X axis
Display magnification	1 to 200x in both Z and X axis (up to 2.000 times optional)
Drive speed	0.02mm to 5mm/s at measuring, 0.02mm to 10mm/s at returning
Straightness accuracy	1µm/100mm
Pick up	Stylus R25µm, tungsten carbide
Measuring force	10mN to 30mN (adjustable)
Traceable angle	Ascend: 77 degrees (smooth surface), descend: 87 degrees
Measuring direction	Both upward and downward, both forward and backward
Pick up/down range	200mm manual (EF-150ED: 200mm motorized)
Dimensions measuring part	640mm x 685mm x 315mm, 70kg
Dimensions amplifier	436mm x 387mm x 150mm, 10kg
Dimensions PC and printer part	650mm x 500mm x 550mm, 30kg for reference
Operation conditions	10°C to 30°C / 80% or less
Power supply	AC100V 50/60Hz 500VA including 300VA for PC and printer
Data correct functions	Alignment function (data point movement, rotation, reverse), linkage function, stylus curvature radius correction, stylus arm arc error correction, best fit function
Analysis items	Element analysis (point, line, circle, peak, through, cross point, cross line, contact point), scaler analysis (coordination distance, cross angle, distance, radius), ball screw analysis, master comparison analysis, inspherical surface analysis
Measuring support functions	Macro function, auto measuring function
Auxiliary functions	Free layout edit, vibrator, measuring range limitation, overload stop, up/downward measuring, over scale warning

## Standard delivery

- Bed with column
- Drive unit
- Pick-up (standard PU/FG25 with stylus arm SB-609)
- Amplifier
- Contour analysing software
- Calibration specimen
- CV Instruments certificate
- Manual

## Optional accessories

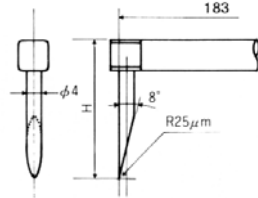
- PC with monitor
- Contour pick-up series and styli and stylus arms (see next pages)

# PICK-UPS FOR CONTOUR MEASUREMENT

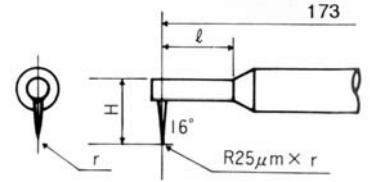
For series CV-EF150E/CV-EF150ED

## Stylus arms

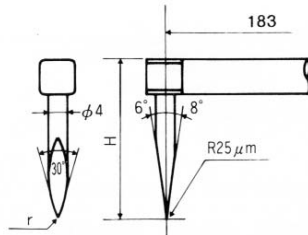
**Type:** Chisel type  
SB-609



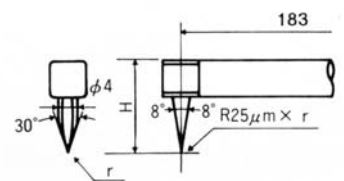
**Type:** Small hole type  
SB-7, 8, 9, 10



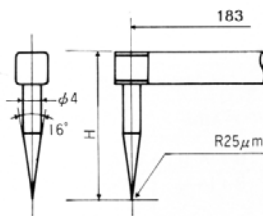
**Type:** Axe type  
SB-1A,4



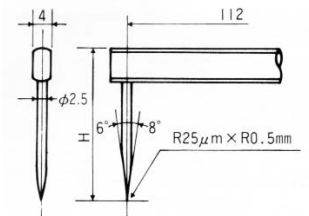
**Type:** Small hole B- type  
SB-11,12



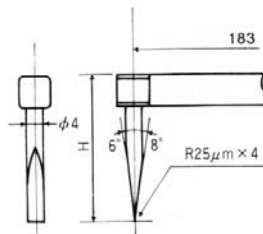
**Type:** Conical type  
SB-2A,17,5,18



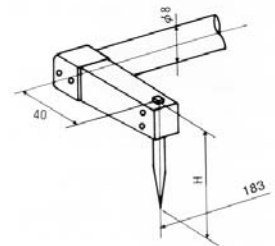
**Type:** Narrow groove type  
SB-13,14



**Type:** Knife-edge type  
SB-3A,6

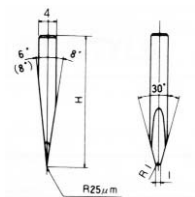


**Type:** Crank type  
SB-15A,18

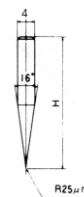


## Stylus forms

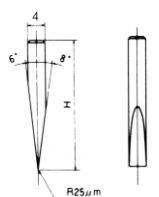
**Type:** Standard styli  
S-1B H=29mm  
S-4 H=50mm



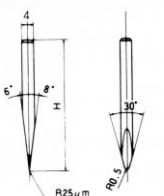
**Type:** Standard styli  
S-1B H=29mm  
S-4 H=50mm



**Type:** Knife-edge styli  
S-3B H=29mm  
S-6 H=50mm



**Type:** Styli for narrow groove (styli for holes)  
S-13 H=22.5mm  
S-44 H=30mm



**Type:** Styli for small holes  
S-7 H=2mm, R0.2mm  
S-8 H=3.5mm, R0.2mm  
S-9 H=5.6mm, R0.5mm  
S-10 H=8.5mm, R0.5mm  
S-11 H=13mm, R0.5mm  
S-12 H=21.5mm, R0.5mm

**Type:** Standard offset styli  
S-609

