


















# Optima X

## 1D Manual Machine



-  Manual movement
-  Controller with graphic display
-  Ergonomic design of air bearing operation
-  Multiple reference points
-  Zero setting at any point
-  Passive temperature compensation
-  USB & RS232 port for communication

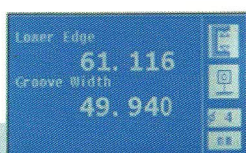
### Measuring cycles

-  Contact above / below
-  Shaft above / below
-  Bore above / below
-  Groove & Ledge measurement
-  Squareness measurement
-  Parallelism measurement
-  Preset at any point
-  1 D Measurement
-  mm / inch conversion
-  500 step memory

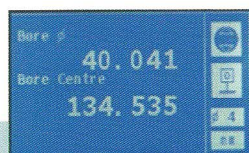
Specifications	Optima X 450	Optima X 600	Optima X 1000
Measuring range	450 mm	600 mm	1000 mm
Expandable range	750 mm	900 mm	1300 mm
Resolution	0.005 / 0.001 / 0.0005 mm		
Repeatability (2 $\sigma$ )	On Plane $\leq$ 0.002 mm On Bore $\leq$ 0.003 mm		
Max. Measurement speed	600 mm/sec		
Measuring force	1.2 N $\pm$ 0.2		
Max. Permissible error *	2.5 + L / 250 $\mu$ m (L= Length in mm)		
Squareness **	6.5 $\mu$ m	10 $\mu$ m	15 $\mu$ m
Air Cushion	Standard		
Operation time (battery)	16 hrs		
Operation temperature	10°C to 40°C		
Weight	22 kg	24 kg	28 kg
Standard probe	Carbide ball dia 6 X 48 mm		

\* Values valid with standard ball probe at temperature 20°C  $\pm$  0.5°C

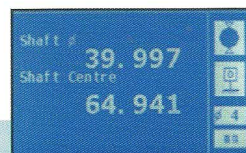
\*\* With electronic probe Magnascan50



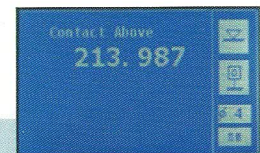
Groove measurement



Bore measurement



Shaft measurement



Above measurement