VICIVISION

M1

OPTICAL MEASURING MACHINE FOR CYLINDRICAL ELEMENTS.

Keep production in tolerance, reduce rejects and produce more.

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M1 LIGHT UP YOUR QUALITY.

M1: A RANGE OF UNBEATABLE PRICE/PERFORMANCE SOLUTIONS TO SUIT ALL YOUR NEEDS.

M1 offers top of the range performance in a practical and compact **optical measuring machine for turned parts**.
Its unique design gives direct access to the piece, ensuring practical loading for both small and large components. The **enlightened LED loading area** provides excellent visibility in every situation.
The **full metal housing** provides protection from oil in the working environment and the **new photoelectric cells** make the measuring process safer.
Vertical positioning of the piece facilitates loading, even with pieces up to 300 mm in length, by using either cone tailstocks, clamping chucks or negative cone cusps for blocking pieces without centers.
The upper tailstock **slides on prismatic guides** with ball bearings guaranteeing maximum precision and sliding over time. The upper tailstock is equipped with a new and more practical load lever.
It is activated by a rack and pinion which provide maximum accuracy as the piece to be clamped approaches.
A counter-weight makes the entire system run smoothly.
The machine is equipped with a **double temperature compensation system** (both on diameters and on lengths), making it ideal for direct use on the shop floor.
Its unique **"Air Flow" cooling system** means it can withstand even the toughest environments.
The **integrated software** allows operators to work on the real image of the piece.
Self-programming and **step-by-step programming** features facilitate operations.
Measuring programs can be loaded manually, by bar-code (not included in the supply of the machine) or by self-recognition of the piece's image.

Among the possible measurements:
Diameters (static, dynamic, interrupted, etc.)
Lengths (distance between points or other general geometric elements)
Angles and Radii
Cylindrical and conical threads and nut measurements
Geometric measurements (parallelisms and orthogonalities)
Shape measurements (circularities, coaxialities, run-outs, cylindricities)
DXF comparison*, camshaft and turbine measurements* (*optionals)

INCREASED PRODUCTION, COST REDUCTION:
- Inspections in a matter of seconds
- Programs in just minutes

GREATER EFFICIENCY ON SMALLER BATCHES:
- It helps operators in batch changeover
- It allows rapid batch changing
- It can be used by more than one operator at the same time

IMPROVE PRODUCTION:
- Operators are more independent during inspection.
- Measurement is not influenced by manual intervention.
- Allows to set tool offset before values are out of tolerance.
- Assess product quality without extra costs

Technical Data	M1
Max. measurable piece	300x60 mm
Max. piece to be loaded	315x120mm
Max. weight to be loaded	10 kg
Measurement accuracy on diameter (average diam.)	(2+D[mm] / 100) µm*
Measurement accuracy on length	(5+L[mm] / 100) µm*
Measurement repeatability on diameter (average diam.)	0,4 µm*
Measurement repeatability on length	3 µm*
Vertical scanning speed	100 mm/s
Rotational scanning speed	1080 °/s **
Machine's weight	160 kg
Power supply	230V – 50/60 Hz
Dimensions LxWxH	650 x 860 x 1041 mm

* Data indicated refers to measurements taken with a temperature of 20°C on clean and rectified surfaces. Data may vary according to shape and surface condition of the pieces.
** The maximum rotation speed depends on security conditions and on fixing conditions.

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