LASER Series 2000/6000 (Metal)
Laser technology measures the diameter of wire rods, bars and tubes

SIKORA measuring systems are worldwide known for their unique non-contact and non-destructive measuring principle. The gauge heads of the LASER Series 2000 reliably and precisely measure the diameter and ovality of steel tubes and pipes during production.

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SIKORA measuring systems are worldwide known for their unique non-contact and non-destructive measuring principles. The gauge heads of the LASER Series 2000 reliably and precisely measure the diameter and ovality of metal tubes, wire rods and bars during production. The measuring method is based on the usage of CCD sensors and laser light sources in combination with powerful signal processors. The outer diameter of the metal tube, wire rod or bar is calculated by means of an intelligent diffraction analysis. Extremely short exposure times guarantee a high accuracy of the single value at all line speeds. The gauge heads are free of wearing parts, keep their precision during the entire operating time and no calibration or maintenance work is necessary. The innovative LASER Series 6000 opens up a new era of precision diameter measurement. The LASER Series 6000 devices expand SIKORA’s current range of intelligent diameter gauges with three high-end models. Up to 5,000 measurements per second and axis, all with extremely high single value precision, enable an optimum line control, provide reliable statistical data, and allow the detection of lumps and neckdowns at the same time. The SIKORA gauge heads measure the diameter of tubes, wire rods and bars with impressive precision and repeatability. Three gauge head models cover product diameters from 0.2 to 78 mm. The devices include an integrated LCD display that provides the operator with diameter values at one glance, directly at the measuring device.

Specifications

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<th>Measuring Principle</th>
<th>Non-contact and non-destructive on the basis of CCD line sensors and laser light sources in combination with powerful signal processors</th>
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<td>Application and Material</td>
<td>2-axis or 3-axis diameter and ovality measurement of steel tubes/wire rods/bars and further metal pipes like e.g. aluminum, copper etc.</td>
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| Measuring Range | LASER Series 2000: 0.05 to 500 mm
LASER Series 6000: 0.2 to 78 mm |
| Measuring Rate | LASER Series 2000: 500 measurements/sec/axis
LASER Series 6000: 2,500 measurements/sec/axis (5,000 measurements/sec/axis optionally available for LASER 6020 XY) |
| Exposure Time | 0.2 µs |
| Interfaces | RS485, RS232
Optional: analog output or alternatively industrial fieldbus (e.g. Profinet IO, EtherNet/IP, Profibus-DP, CANopen, DeviceNet, OPC UA) Wi-Fi (only at LASER Series 6000) |
| Power Supply | 100 - 240 V AC ± 10 %, 50/60 Hz |