

Automatic Desktop Laser Scanner For Stators

Scanner for check of internal surface of small pipes, stators and other objects with a form of cylinder

Description

The scanner quickly and with a high accuracy measures geometrical parameters of the internal surface profile. Measurements can be made in as many cross-sections as necessary in both manual and automatic modes.

Having a high performance, the system secures 100% check of the pipes, enables to inspect up to 1500 objects in an 8-hours shift. High performance is achieved by two-position rotary conveyor. An operator loads an object into the system. The object is auto-centered and fixed. Pressing the pedal moves the part to the inspection zone. During inspection, the operator can insert the next object in the second loading position of the rotary table.



The internal surface is checked by the optical triangulation gauge. The gauge scans needed cross-sections according to a chosen scenario.

Emergency stop button launches the safety algorithm in case of any troubles.

The scanner meets the high requirements of European standards of personnel safety. The light barrier eliminates any risk of access to the rotary table area during the conveyor rotation.

The system can be adapted to your type of cylindrical parts.

Features

- High performance
- Pipe auto-centering
- Accuracy $\pm 0,01$ mm
- Light safety barriers by PILZ
- Inner diameter from 20 mm
- Manual and automatic mode
- Non-contact optical measurement
- Self-diagnostic and safety algorithm
- Rotary conveyor for pipe loading and unloading
- Pairing with external robots for loading and unloading

Measurable Parameters

- Measurement In Horizontal & Vertical Cross-Sections Of:
 - Ovality.
 - Height
 - Internal diameters.
 - Deviation from the form.
 - Distance between peaks and troughs of the profile

Application

1. Statistics on batch quality.
2. Working in harsh conditions.
3. Operation in continuous mode 24/7.
4. Measuring process is synchronized with the robots.
5. Comparison with a reference model (dxf - file or tolerance table).
6. Check of geometry and quality of internal surface of stators, pipes, couplings and cylinders during manufacturing or final tests.

Specification

Inner Pipe Diameter:	20 – 65 mm
Outer Pipe Diameter:	75 – 90 mm
Pipe Height:	20 – 275 mm
Vertical Resolution:	0,5 mm
Angle Resolution:	0,1° Degree
Diameter Measurement Accuracy:	0,01 mm
Compressed Air:	4 – 8 Bar
PC Requirements:	Windows 7 64x And Higher, USB Plug
External Interfaces:	Ethernet, TCP/IP, Wi-Fi

Environmental Conditions

Ambient Temperature:	- 20 to + 65°C
Air Humidity:	Less 98 %
Atmospheric Pressure:	450 - 780
Power:	220 V 50 Hz 200 W
Overall Dimensions:	660 x 350 x 1100 mm
Weight: Kg	200 kgs
Warranty:	2 Years

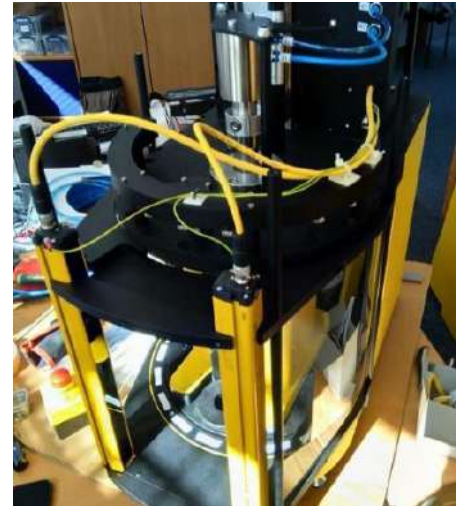
The system equipped with PILS light safety barriers is available as well.

Comes Complete With The Following

- Cables
- Software
- Foot pedal
- Reference ring
- Desktop scanner
- Emergency stop button
- PC or laptop (option) / industrial PC in IP54 enclosure (option)
- User manual, Maintenance papers, Troubleshooting, Spare parts papers

Software Features

- Reports
- Operator identification
- Measurement cycle control
- Reference database control
- Local database: view, export, backup
- Current status indication, self-diagnostic
- Reading's visualization in a table or 3D graph way



Designation

DSCAN – IN min / max – OUT min / max – L min / max – C – D – R – M

Symbol

IN Min / Max
 OUT Min / Max
 L Min / Max

Description

Min and max inner diameters (inner diameter range)
 Min and max outer diameters (outer diameter range)
 Min and max pipe heights

C

Measurement Table Types

C0-One-position table without rotation
 C1 – Two-position rotary table.

D

Operator Console

M0- pairing with customer’s PC
 M1-desktop PC or laptop is included;
 M2- desktop PC + additional screen for indication
 M3 – industrial IP54 enclosure with PC

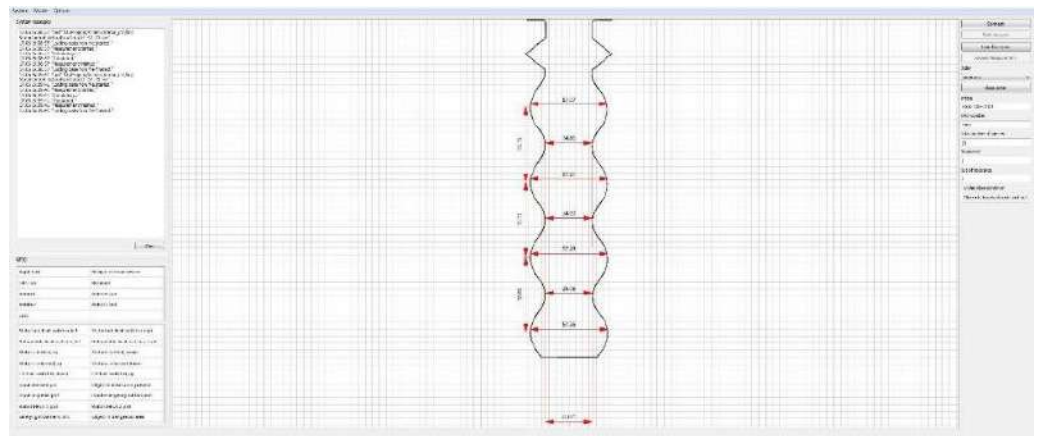
R

Interaction with External Robots

R0 – no
 R1 - yes.

Software interface and manuals are available in English, German and Russian.

Software



Reports

