

MODULAR 3D SENSORS

“À la carte” expertise

INO’s high power and high speed 3D profilers are designed to measure surfaces several meters wide with unprecedented accuracy in full sunlight. To this end, INO develops a series of dedicated software and hardware tools. Features are offered “à la carte” to speed up the product development cycle and deliver performance. Our sensors can be linear or cylindrical.

EXPERTISE

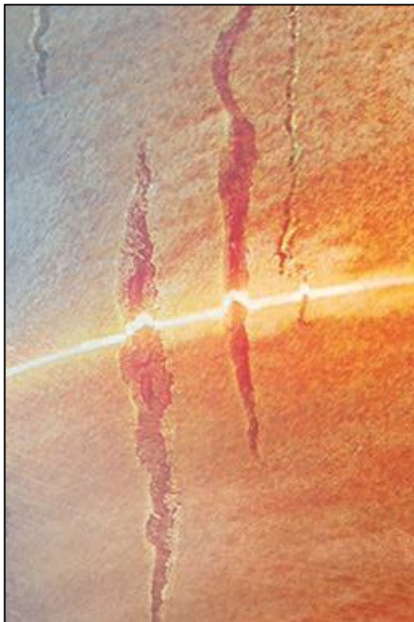
Configuration design software

- Configuration optimized for given specifications
- Designed using an extensive database of off-the-shelf lenses and sensors



High power laser projector

- 15 W optical power
- 30 kHz pulse modulation
- Thermal management



Accurate acquisition software

- Demonstrated 1/16 pixel peak detector module
- 60 million points per second
- 30,000 fps
- 2,000 points/profile



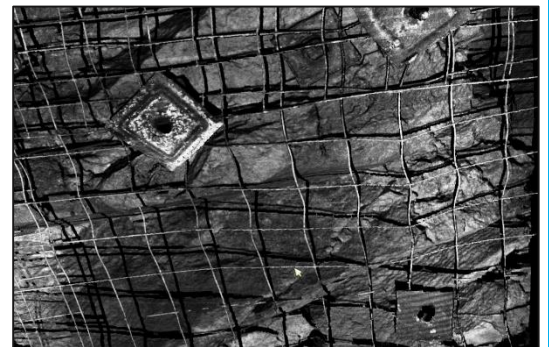
Precise calibration software

- Highly compressed look-up table (LUT)
- Lossless LUT
- Noise filtering



Large dimension point cloud viewer software

- Billions of data points
- Real-time, level of detail visualization



360° 3D SENSOR

Profilometer for in-line inspection

INO offers a non-destructive testing solution for non-traditional inspection that precisely identifies defects from inside the pipeline, allowing a quick and targeted response to prevent any potential leak.

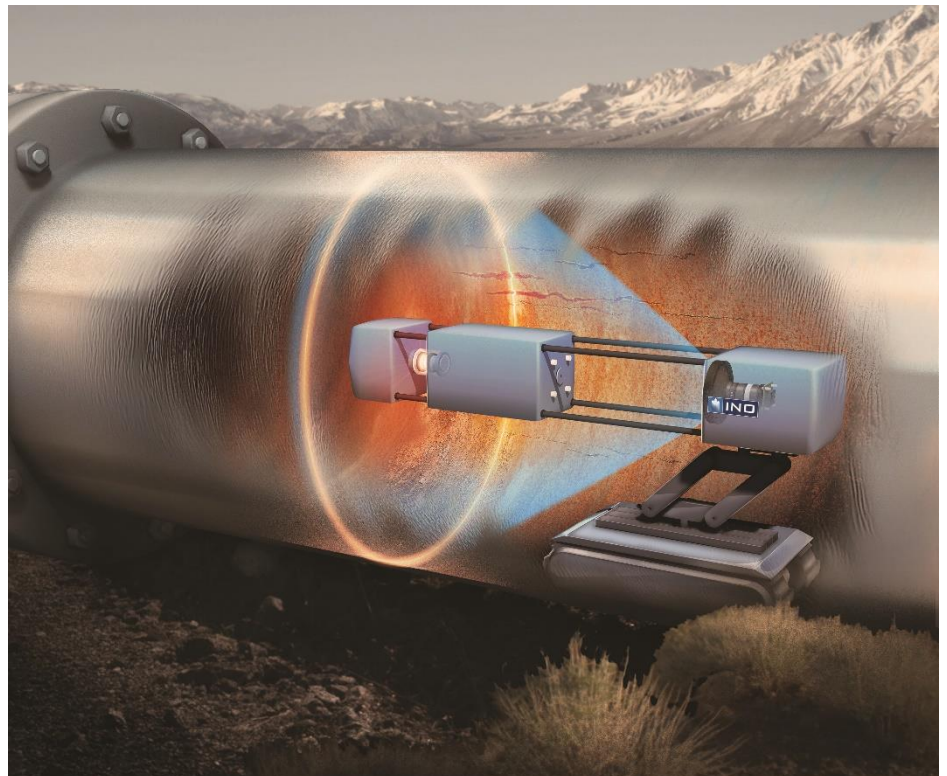
This solution is a sensor that provides 3D range measurement at 360 degrees. Based on a laser triangulation profilometer, it detects very small defects such as cracks, metal loss and corrosion early in the degradation process. This sensor is also ideally suited to pipe geometry assessment to measure ovality and detect dents. When mounted on an autonomous crawling vehicle, this sensor becomes the perfect in-line inspection tool.

FEATURES

- Built for pipes ranging from 6 in. to 30 in. (15 cm to 80 cm) in diameter
- Lightweight (3.3 lb., or 1.5 kg)
- Low power consumption (< 4W)
- Can inspect carbon steel, concrete, PVC, HDPE and clay tile surfaces

APPLICATIONS

- In-line inspection
- Pipeline monitoring
- Borehole monitoring



INO OFFERS

R&D CONTRACTS — PROTOTYPING — PREPRODUCTION
SHORT-RUN PRODUCTION — TECHNOLOGY TRANSFERS