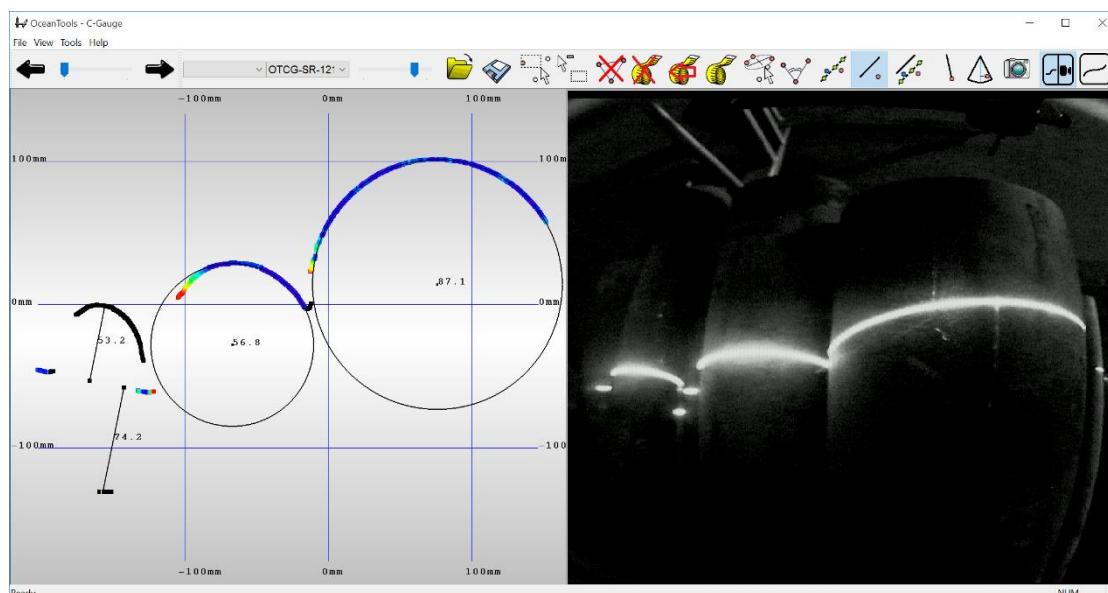


OceanTools

C-Gauge

Underwater laser based measurement system

The *field-proven* **OceanTools C-Gauge** laser based measurement system offers *sub-millimetric* underwater measurements.



Software screenshot showing radii of different pipes and distances to a line.

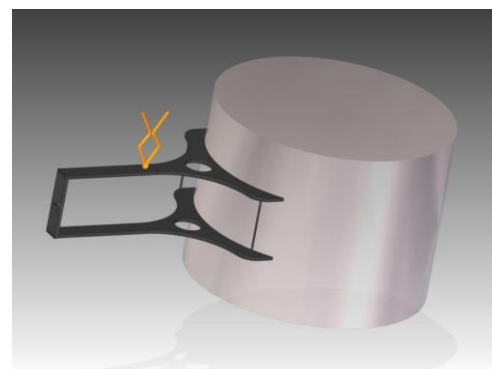
Overview

The highly compact and rugged package comprises an **OceanTools C-Laser**, underwater camera, deployment frame and analysis software. The system has been designed for a wide range of subsea measurement applications including:

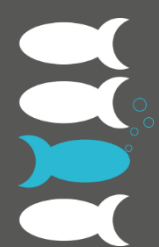
- Pipeline cracks and gaps
- Ovality, diameter and radial measurement
- Precise distance and angular measurements

C-Gauge can be deployed on a custom designed mounting bracket to suit the task at hand. In order to measure the radius or diameter of circular objects such as platform legs or pipes, it is *imperative* that it is mounted perfectly perpendicular to the object being measured, in which case a special perpendicular alignment tool should be used.

The laser is a visible blue (450nm) solid-state Class IIIb / 3B laser with an output power of up to 100mW. Direct eye exposure should be avoided, but the laser is considered safe if handled carefully.



Perpendicular alignment tool



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ROV Mounted C-Gauge-RM

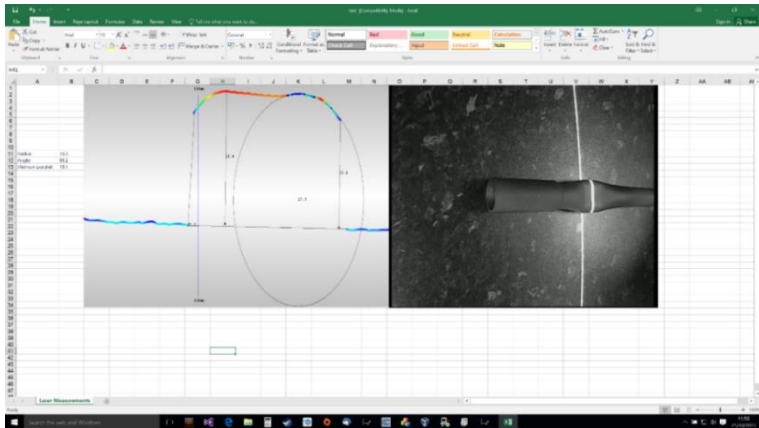


Diver Held C-Gauge-DH

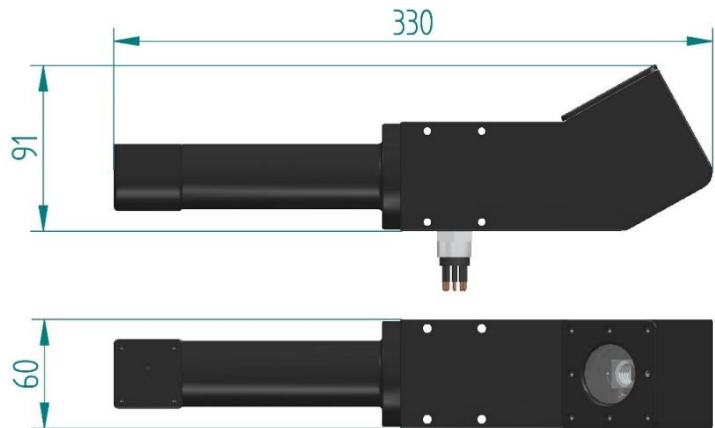
Depending on the range, **C-Gauge** can generate results with an accuracy of 0.5mm. **C-Gauge-RM** is very compact and has been designed to fit onto the smallest of ROV systems. The system requires a single 24VDC input and a video link to the surface. **C-Gauge-DH** offers the same accuracy and functionality, and includes a diver-friendly handle and function switch. This allows for better handling during scanning operations, and also maximises diver safety when using the integral laser.

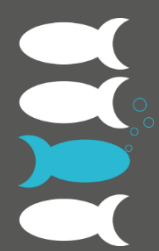
Key Features

- 700 data points per scan
- Accuracy to 0.5mm
- 3000m depth rating
- ROV mounted and diver held models
- Custom designed mounting brackets
- 2D and 3D display modes
- Export data to Excel

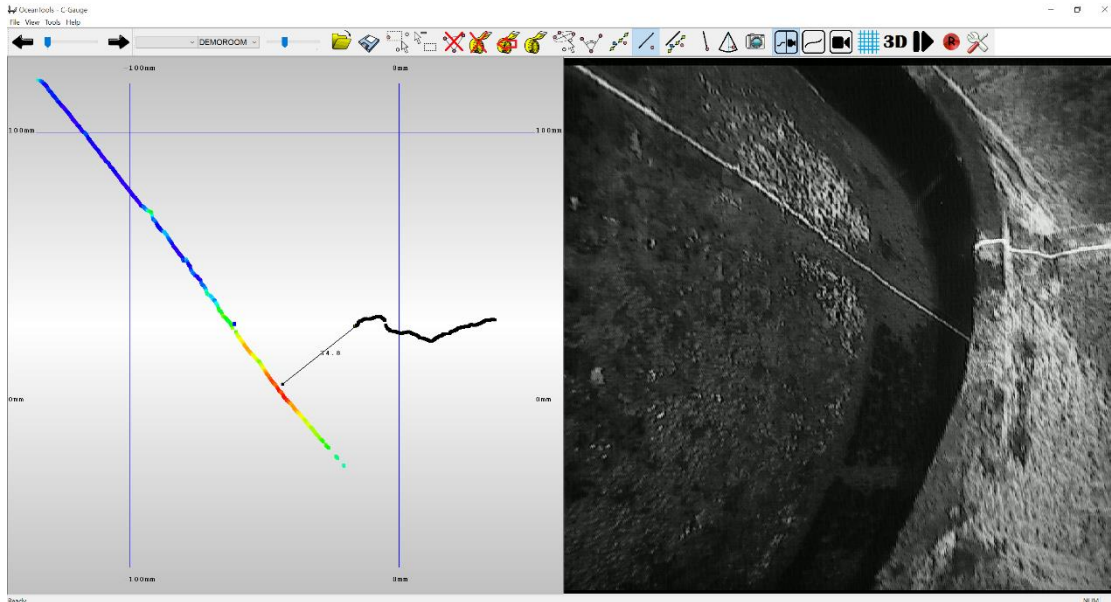


Straightforward data export to Excel





Typical usage scenario



Gap in between a caisson and a clamp. Distance to the clamp is measured, and the different colours on the line show the deformation of the caisson as a result of collisions with the clamp.

Specifications	
Maximum range	1.5m
Range resolution	0.5mm
Laser colour/wavelength	Blue/450nm
Laser power	70mW
Fan beamwidth (underwater)	45°
Depth rating (standard)	3000m
Input voltage	24VDC
Operating current	250mA @ 24VDC
Materials	Hard anodised aluminium
Weight in air	2kg
Weight in water	1kg
Operating temperature	-5° C to 35° C

Product datasheets, GA drawings, case studies and other supporting documents are available to download from data.oceantools.co.uk

All specifications are subject to change without notice. E&OE.

Version 11 (18.01.2018)