



# CYGNUS UNDERWATER ULTRASONIC THICKNESS GAUGE



Specifically designed for divers undertaking ultrasonic thickness measurement (UTM) of underwater structures, the Cygnus Underwater has been built to withstand harsh subsea environments while providing quick and accurate metal thickness measurements through coatings or heavy corrosion. This diver-held gauge is simple to operate using 3 function keys, an intuitive menu and a large LCD display – highly visible, even in low-visibility waters.

IDEAL FOR  
USE IN



HULL UTM  
INSPECTION



CIVIL  
ENGINEERING

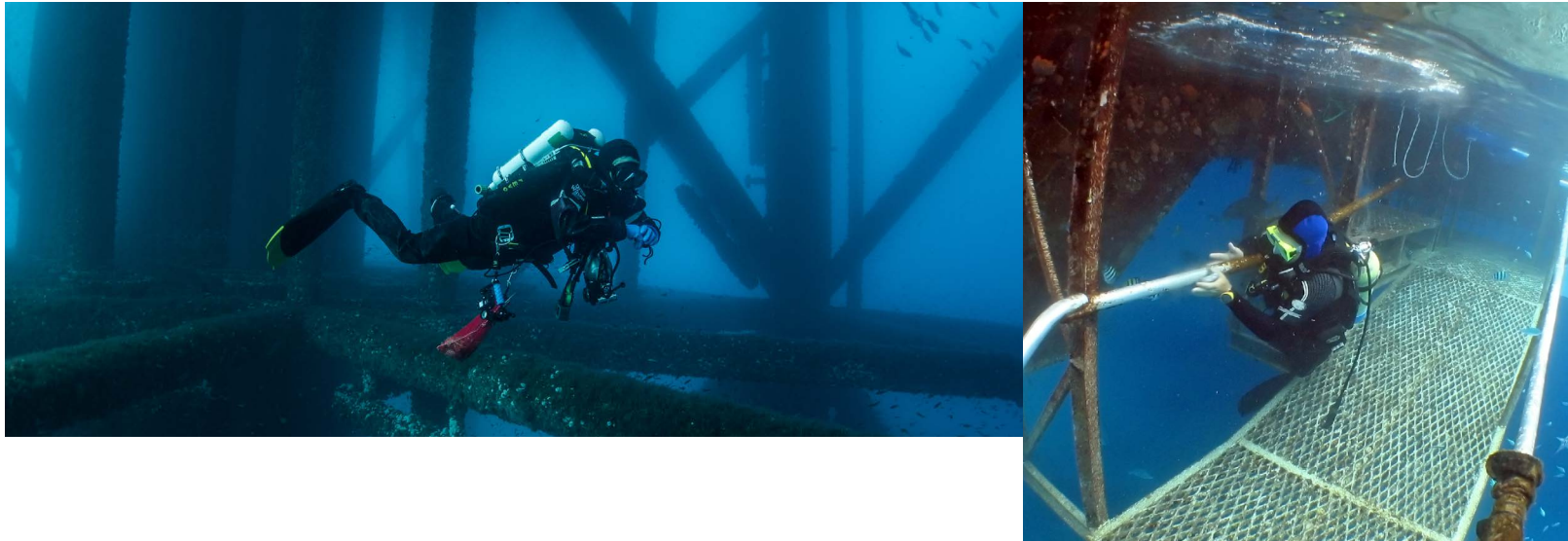


MARINE  
STRUCTURES



OFFSHORE  
PLATFORMS

...underwater structures, e.g. bridges, tanks, canal locks, subsea pipelines and equipment, UWILD or IWS class surveys.



## CYGNUS UNDERWATER KEY FEATURES



- 3 measuring modes for levels of corrosion, various materials and through-coat measurements
- Depth sensor - live depth display providing the diver with an accurate depth indicator
- Live A-Scans aid visual measurement verification
- Extremely Simple-to-Use with 3 function keys and up to 4 screens
- Comprehensive data-logging: linear and grid
- Deep Coat function ignores thick coatings
- RTC (Real Time Clock) for tagging date/time on measurement points
- Auto-set Gain to optimise the probe's gain settings for optimal performance
- Multiple Echo Mode to verify accurate through-coat measurements as specified by Class Societies
- Measurement Stability Indicator (MSI) verifies stable and therefore reliable measurements
- Available in STANDARD, PLUS and PRO variants, with the option to upgrade to the PLUS or PRO variant at a later date

**LARGE COLOUR LCD DISPLAY**

**CYMLINK SOFTWARE**

**DEPTH SCREEN VIEW**

**LIVE A-SCAN FOR FURTHER VERIFICATION**

### Three Selectable Measuring Modes

Multiple-Echo mode uses three error checked back wall echoes to provide the most reliable and accurate remaining thickness measurements, with no need to remove coatings (up to 20mm/0.8 in thick).

Single-Echo mode is ideal for measuring uncoated metals with heavy front and/or back-wall corrosion. Also effective on many cast metals, plastics and composites.

Echo-Echo mode works best for measuring heavily corroded metals through thin coatings of up to 1mm/0.04in thick, ideal for measuring coated metals with heavy back wall corrosion.

Exclusive to Cygnus, Measurement Stability Indicator (MSI) ensures stable and therefore reliable measurements are displayed in Echo-Echo and Single-Echo modes.

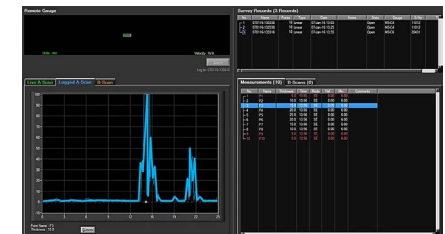
### SELECTABLE OPTIONS

#### Comprehensive Data Logging

- Record types: Linear and Grid 2D

40.00			
	C3	C4	C5
R13			
R14	39.95	39.95	
R15	Obs	Nor	39.95
R16	Obs	40.05	40.05
R17	39.85	40.00	40.00

- Log measurements by pressing the middle key or using Auto-Log feature
- Allows a maximum of 5,000 measurement points per record
- 16 grid patterns available
- Saves measurements with A-scans and depth as records on internal memory



#### Topside Repeating via CygLink

CygLink is a Windows® based application for computer use to display continuous A-Scan output and measurement data. CygLink has the facility to log both data formats into a Survey file for report presentation, which can be emailed, exported as a PDF, or printed.

## CYGNUS UNDERWATER SPECIFICATION

Feature	Description
<b>Measuring Mode</b>	Multiple Echo with Single Crystal Probes Single Echo with Twin Crystal Probes Echo-Echo with Twin Crystal Probes
<b>Materials</b>	Sound velocity from 2000 m/s to 9000 m/s [0.0787 in/us to 0.3543 in/us]
<b>Accuracy</b>	±0.1 mm (±0.004") or 0.1% of thickness measurement whichever is the greatest
<b>Resolution</b>	0.1mm, 0.05mm or 0.01mm depending on probe type
<b>Probe Options</b>	Single crystal and twin crystal probes
<b>Measurement Range in Steel</b>	1mm to 250mm (0.040 in. – 10 in.) depending on selected probe and configuration, material and temperature
<b>Connector</b>	SubConn MC
<b>Power Supply</b>	Ni-MH Battery Pack 1.8 Ah (min)
<b>Power Rating</b>	1.5W
<b>Probe Sockets</b>	Lemo
<b>Battery Life</b>	8 hours minimum continuous measurement
<b>Display</b>	2.4" VGA, sunlight readable colour display
<b>Size</b>	80mm x 305mm x 65mm (W x L x D)
<b>Weight</b>	1 kg with battery
<b>Operating Temp.</b>	-10°C to +50°C (14°F to 122°F)
<b>Storage Temp.</b>	-20°C to +60°C (-4°F to 140°F)
<b>Data Logging</b>	5,000 measurements and A-scans per record
<b>Computer Software</b>	CygLink allows remote logging and viewing of A-scan graphs. Survey and report generation to PDF file. Graphic analysis of data and statistical calculations. Data output via RS-485 serial connection to transfer data to a Windows® computer with CygLink
<b>Depth Sensor</b>	Range 0 to 300m (30Bar)
<b>Environmental Rating</b>	Depth rated for 300m continuous immersion in sea water MIL STD 810G Method 501.6 (High Temp +55°C) MIL STD 810G Method 502.6 (Low temp -20°C)
<b>Shock &amp; Impact</b>	MIL STD 810G Method 514.7 (Vibration) MIL STD 810G Method 516.7 (Shock 20g) MIL STD 810G Method 516.7 (Transit Drop 1.22m)
<b>Standards</b>	Designed for BS EN 15317 RoHS Compliant
<b>Warranty</b>	3 years on gauge and 6 months on probe



Cygnus Instruments Ltd.  
Cygnus House  
30 Prince of Wales Road  
Dorchester  
Dorset DT1 1PW  
United Kingdom



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All information provided is subject to change without prior notice.

### Cygnus Headquarters

**Call** +44 (0) 1305 265 533  
**Email** sales@cygnus-instruments.com  
**Visit** cygnus-instruments.com

### Cygnus UAE

**Call** +971 50 3459305  
**Email** ribu@cygnus-instruments.com  
**Visit** cygnus-instruments.com

### Cygnus USA

**Call** +1 346 223 0415  
**Email** sales@cygnus-instruments.com  
**Visit** us.cygnus-instruments.com

### Cygnus Singapore

**Call** +65 6252 5909  
**Email** sales@cygnus-instruments.sg  
**Visit** sg.cygnus-instruments.com