

INNOVATIVE  
MEASUREMENT  
TECHNOLOGY LTD.



# Pitchometer

Pitch control for marine  
propellers

# Precision through Innovation

@IMTmetrology

# Introduction

## Pitchometer for marine propellers

Since 1994 we have been one of the leading suppliers of precision engineered measurement equipment.

We supply a full range of high accuracy gauges, DRO, Sony Magnescale liner scales, LaserScale, measurement computers, IBR digital columns, Coordinate measuring machines, visual inspection systems, materials testers and Encoders. We also have an extensive range of machine shop tools such as height gauges, callipers, plug gauges and much more.



The pitchometer is a precision instrument for measuring the pitch of marine propellers.

Various options are available which can be customised to suit customers requirements. These include versions with a PC and dedicated software for producing detailed reports and a fully motorised option.

# Options

Available in several versions to better suit customer requirements. These include pitchometer with a digital readout, with a PC including dedicated software and a motorised version with PC including dedicated software.



**With Digital Readout**



**With PC**  
and dedicated software



**Motorised version**  
with PC and dedicated software

# Main features

The Pitchometer is an instrument for measuring the pitch of marine propellers according to ISO 484 certification. Manual and motorised options are available with different specifications including dedicated PC software for generating reports and additional data analysis. Customisations are possible on request.

Measuring range radius **0-750mm**, measuring range height **0 - 300mm** and **360°** angular range.

## Training included

Pre testing and training can be conducted at the factory to ensure the user is confident using the Pitchometer.

## Printable reports

Certificate of compliance generated which include measurement data, propeller and customer information.

\*selected models only

Pitch control

Axial position

Tilt test (rake)

Angular deviation

Propeller radius control

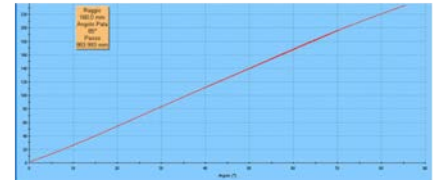


# Measuring data

Data from collected measurements will be available to view with the following generated graphs. \*Only available for versions with PC and software.

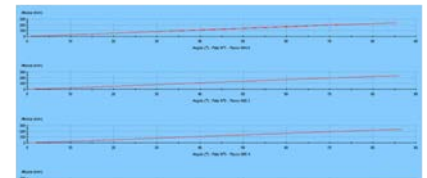
## Single chart

Displays the selected single blade profile to indicate any excess or lack of material



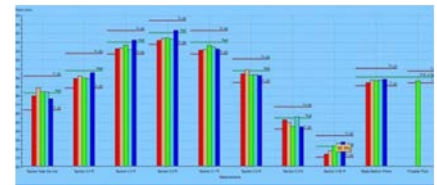
## Profiles or radius chart

Allows the user to compare pre selected blade profiles against a given radius



## Bar chart of mean pitch

Displays the pitches on a bar graph which are evaluated against the theoretical pitch line and tolerance range. Each blade marked by a different colour for easy identification.



## Bar chart of local pitch

Displays the local pitch on a bar graph which are evaluated against the theoretical pitch line and tolerance range.



## Custom report

A user customisable Certificate of Conformity can be issued with the most important data. This includes: measurements, propeller data, customers data and compliance or non-compliance with the class of membership.

Quality Certificate No: 0001200		
Customer:	No. of blades: 8	Serial Number:
Job Number:	Water: 5911	Manufacturer:
Boat Name:	Depth: 140.0 mm	Date of Measurements: 23/09/2014
Notes:	Measured Mean Pitch: 987.8 mm	Date of Issue: 16/06/2015
Design: ABB100072	Design Mean Pitch: 987.8 mm	Technician: PACE
Direction of rotation: CW	Blade angle:	Card number:
Controls performed according to ISO 4342:		
<input checked="" type="checkbox"/> Local Pitch: OK	Average Pitch: 987.8 mm Precision: 0.1 %	
<input checked="" type="checkbox"/> Section Pitch: OK		
<input checked="" type="checkbox"/> Blade Pitch: OK		
<input checked="" type="checkbox"/> Propeller Pitch: OK		

# Options

Features	Option A	Option B	Option C
Range radius 750mm	Y	Y	Y
Range radius 450mm	Y	Y	Y
Range angle 360°	Y	Y	Y
PC software	Y	-	-
Display digital readout 4 axis	-	Y	Y
Set of cones for clamping on hub propeller	Y	Y	Y
Probing tip	Y	Y	Y
Pneumatic brakes	Y	Y	-
Table for probing overlapping blades with 3D tip	Y	Y	Y
Z axis counter weight anti-vibration feet	Y	Y	Y
Packing case for transport	Y	Y	Y

Features	PC software	Display digital readout
Readout radius	Y	Y
Readout height	Y	Y
Readout angle	Y	Y
Calculation of propeller mean pitch	Y	Y
Single chart of the blade	Y	-
Profiles of radius chart	Y	-
Bar chart of mean pitch	Y	-
Unified profile chart for radius	Y	-
Bar chart of local pitch	Y	-
Propeller radius control	Y	Y
Angular deviation test	Y	Y
Tilt test	Y	-
Axial position control	Y	Y
Storage of data as: customer, boat, propeller, measuring results....	Y	-
Classification of propeller	Y	-
Exportation of profile in .csv file	Y	-
Print of final report	Y	-

Feature included (Y)  
Feature not included (-)

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