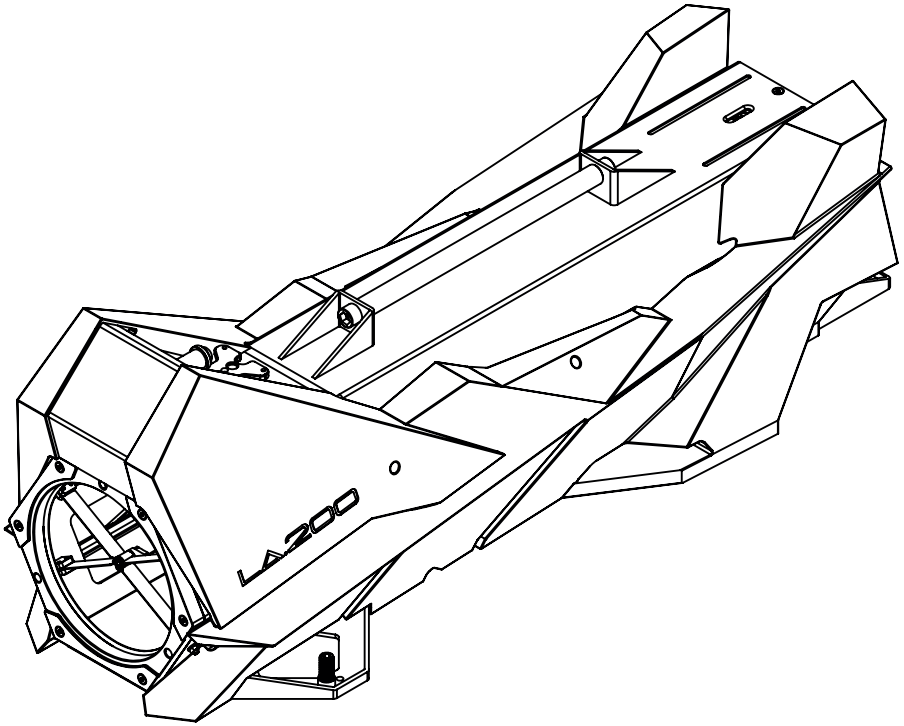
METROLOGY SYSTEMS



imagine optic

A 25-YEAR INNOVATION RUN IN WAVEFRONT SENSING METROLOGY

Index

Imagine Optic 1st generation of -linear!- Shack-Hartmann wavefront sensors was designed and manufactured in Orsay 25 years ago.
Coupling with **deformable mirrors** and constant updates were developed since the early 2000s, leading to the current 4th generation of **HASO**, covering an ever-broader range of applications for optical metrology and adaptive optics.

In 2020 the **LIFT** series added ultra-high resolution, bringing wavefront sensing on par with Fizeau interferometers for most applications.

Today, the **Optical Engineer Companion** connects Imagine Optic wavefront sensors and illumination modules, offering over 800 possible metrology setups.

Optical Engineer Companion

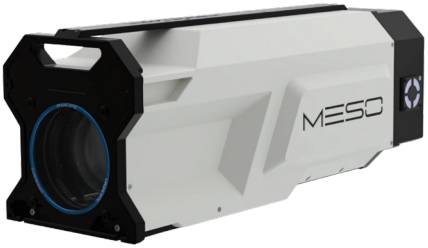

LIFT


H-LINE

SYSTEMS ADAPTED TO EVERY NEED

Imagine Optic offers **two complementary families** of optical metrology solutions meeting the requirements of each working environment.

OEC®
Modular system for lab and R&D



MESO™
Robust instruments for industry and production

OEC CREATE THE COMBINATION YOU NEED

Our family of products now teams up to support your optical metrology.

The OEC® refers to a family of standard sensors, illumination modules and accessories that can be **instantaneously combined** to create the optical configuration you need for your testing.

OEC compatible

Look for the OEC logo to ensure the maximum compatibility.

Select the modules you need among:

1. a variety of metrology **sources** from UV to SWIR

2. a large range of HASO™ or LIFT **wavefront sensors**

3. several R-FLEX™ **illumination systems**

4. and a choice of R-FLEX LA™ **beam expanders**...

...and use them in combination or separately.

APPLICATIONS

The Optical Engineer Companion allows to create a flexible solution for your optical metrology project. The concept ensures upgradability for the ones to come.

The R-FLEX2 illumination accessory is the perfect compact and lightweight solution for:
+ concave optics
+ large telescopes
+ optics in vacuum chambers.

The LA beam expanders are designed for the characterization of flat optics:
+ filters, dichroic beamsplitter
+ flat mirrors
+ optical windows
+ polarization scramblers
+ lasers.

OEC VIS VERSION

R-FLEX LA VIS LINEUP

R-FLEX2

OEC SWIR VERSION

R-FLEX LA SWIR LINEUP

R-FLEX SWIR

MESO METROLOGY SOLUTION FOR INDUSTRIAL ENVIRONMENTS

MESO is a robust instrument for the characterization of flat surface and transmitted wavefront.

Its technology enables **shop floor measurement** and **at-wavelength** characterization.

Automated optical zoom and source and sensor control makes MESO **reliable and easy to use** by any operator.

MESO$_M$
1.5”, 2”, 3”, 4”
680 x 504 phase points
visible range

MESO$_L$
1.5”, 2”, 3”, 4”, 6”
680 x 504 phase points
visible range

MESO SWIR
up to 6”
swir range

APPLICATIONS

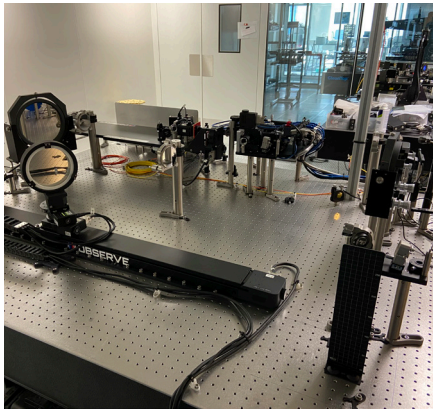
MESO is a robust one-stop solution for optical metrology in industrial and tough environments.

It is the perfect instrument for :
+ in situ process control
+ ISO10110 testing
+ the characterization of optics

MESO is optimized for the testing of :
+ filters
+ dichroic beamsplitters
+ crystals
+ (thin) plane-parallel optics
+ beam expanders
+ large lenses

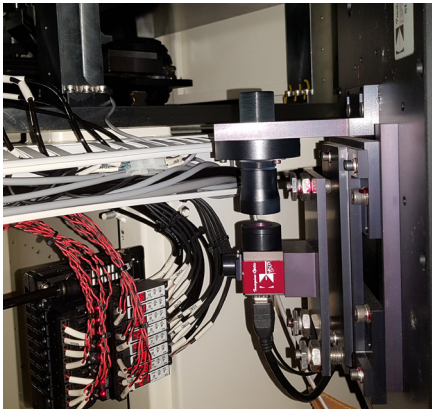
CUSTOM DEVELOPMENTS

Imagine Optic has an **engineering office** covering expertise in optics, mechanics, software and electronics. Contact us to find out how we can **accelerate your development schedule** and help you **reach your performance requirements**.



Scientific optical setup for worldwide premiere optics testing

Automated test bench in high throughput production line



OEM wavefront sensor integration in custom metrology station

METROLOGY SOURCES

Imagine Optic has developed **wavefront-perfect metrology sources** to support wavefront sensing applications.

MS-λ can be used in your lab optical setups, paired with our metrology systems or integrated as OEM parts.

Monomode fiber output guarantees optical quality and ease of mounting, while the integration of Laser Diodes or low temporal coherence SLED sources ensures compatibility with all applications.

MS-λ

405 nm
488 nm
520 nm
635 nm
785 nm
830 nm
1064 nm
1550 nm
custom

Stackable
Manual or remote USB control
Adjustable intensity output (Constant Current or Constant Power modes)
TEC control (SLED models)
Trigger input
FC/APC output

SERVICES

All our hardware equipment comes with complementary services:
+ **Installation** assistance by our technicians and engineers
+ **Training** on both software and hardware, on site or remote
+ **Support** through our Zendesk-powered interface featuring FAQs, troubleshooting and other useful resources as well as a customer login and assistance system with a > 90 % satisfaction rating

Imagine Optic also provides on-demand services :
+ **Recalibration** of HASO wavefront sensors
+ **Equipment rental**
+ **Characterization** of optical components and systems
+ **Custom** optical metrology and adaptive optics benches

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