ILAO

高強度レーザー用デフォーマブルミラー 最大口径 350mm、真空対応、45度入射タイプ有り

Intense Laser Adaptive Optics

A unique deformable mirror

ILAO[™] (Intense Laser Adaptive Optics) is the most advanced deformable mirror available that is specifically designed for today's ultraintense and ultra-fast lasers. Based on patented technology developed by ISP System, ILAO operates using mechanical actuators with astatic floating heads that perform wavefront shaping with nanometric precision. Depending on the type of laser, users can choose from replaceable dielectric or metallic reflective surfaces up to 350 mm in diameter.

What's more, once the optimal mirror shape has been achieved, power is no longer necessary to maintain ILAO's form. The fact that the mirror no longer dissipates any energy or heat from its interior ensures that its high optical quality surface (<10 nm rms) maintains a perfectly stable form over time and minimizes the risk of unwanted hotspots.







Model	Actuators	Min. beam Ø	Max. beam Ø	Incidence	Aperture Ø
ILAO 65	37	40 mm	65 mm	90°	up to 90 mm
ILAO 95-65	37	40 mm	65 mm	45°	up to 120x90 mm
ILAO 95	52	60 mm	95 mm	90°	up to 120 mm
ILAO 135-95	52	60 mm	95 mm	45°	up to 170x120 mm
ILAO 135	52	90 mm	135 mm	90°	up to 170 mm
ILAO 180-135	52	90 mm	135 mm	45°	up to 220x170 mm
ILAO 180	52	125 mm	180 mm	90°	up to 220 mm
ILAO 245-180	52	125 mm	180 mm	45°	up to 280x220 mm
ILAO 245	52	170 mm	245 mm	90°	up to 280 mm
ILAO 335-245	52	170 mm	245 mm	45°	up to 350x280 mm
11 40 335	50	025 mm	225 mm	0.00	up to 350 mm

Imagine Optic



ILAO is the wavefront correction element of the full-featured adaptive-optics solutions that Imagine Optic provides for ultra-intense and ultra-fast lasers. When combined with a HASO3 wavefront sensor and our CASAO command & control software, you have a turnkey solution, where each element works together seamlessly via one ergonomic interface. For even more precision and intensity at the focal spot, the all-new PhaRAO corrects for aberrations at the end of the amplification chain.

HASO™3



With their simultaneous, yet independent, measurement of both phase and intensity, HASO wavefront sensors provide up to λ /100 accuracy with resolutions ranging from 32 x 40 to 128 x 128 true absolute measurement points. With HASO3, users don't have to compromise dynamic range for accuracy thanks to HASO3's patented microlens technology. Even more, certain models connect via Giga-Ethernet, enabling them to be placed at large distances from the control room.

CASAO™

CASAO adaptive-optics command & control software provides a unique and ergonomic interface that allows you to acquire detailed wavefront measurements for analysis, precisely control your wavefront correction device, and perform instrument diagnostics. As an added benefit for intense lasers, CASAO has built in, user definable, security protocols that enable you to set your system to automatically shut down in the case of a suspicious, potentially damaging, situation.



PhaRAO™

PhaRAO is a wavefront-sensorless solution for correcting aberrations of focalization systems at the end of the amplification chain. By using the image acquired by a diagnostic camera, it employs complex algorithms to calculate the ideal deformable mirror form that corrects for end-of-chain aberrations and increases intensity in the focal spot.



To find the Imagine Optic distributor nearest you, visit imagine-optic.com/find.



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