

# AL500-AA

Automated Micro-Optics Assembly



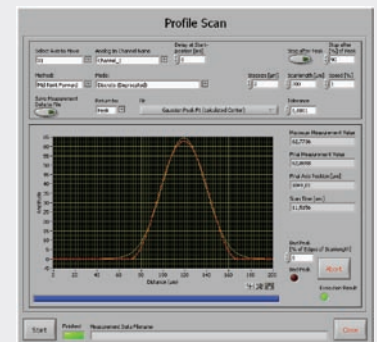
**ficonteC**  
micro assembly machines

# AL500-AA Automated Micro-Optics Assembly

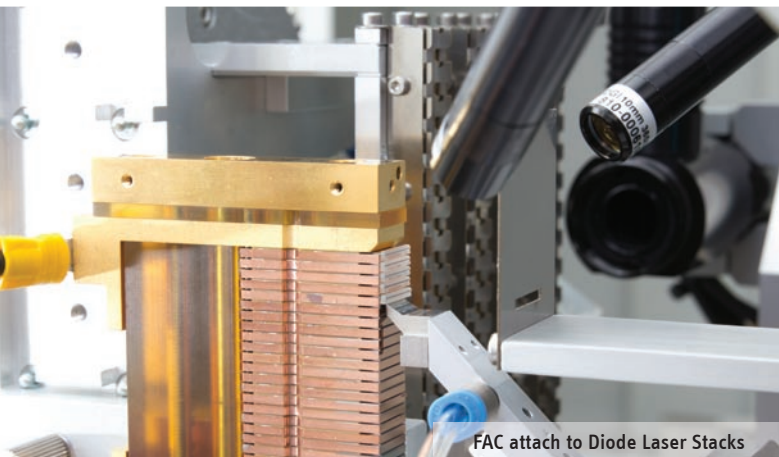
The AL500-AA from ficonTEC's AL product series is specialized for the automated production of micro-optical packages. The machine combines unique active assembly capabilities with a rugged industry proven design.

## Typical Fields of Production

- Fiber laser pump modules
- HPLD modules
- Pico beamer
- RGB modules
- SLED packages



Software Interface



FAC attach to Diode Laser Stacks

## Unique Automated Functions

- Active FAC attach
- Active or passive SAC attach
- Active mirror placement
- Active VBG spectral tuning
- Focus lens placement
- General align and attach of micro-optics

## Machine Layout

- GelPak vacuum release field
- Camera for machine calibration and component recognition
- PCB probes for emitter operation
- Individually driven single emitters
- Thermal chuck with temperature control

## Built for Industrial Usage

- Rugged steel base production cell
- Hardware interlock circuit for safe operation
- Ergonomic HUI
- Full featured machine switchboard
- Integrated air and vac control
- Operation console for comfort access of basic machine function

## Key Features

- High precision 6 axes alignment engine
- Fast configurable active alignment routines
- Signal auto-locking
- Closed loop active alignment from beam profiling
- Special precision epoxy dispensing
- Countermeasure against epoxy shrinkage
- Pick & Place for extended operatorless operation
- Extremely flexible machine software

## Fully Automatic Assembly of Micro Optics

AL500 has been developed for handling, placing, and aligning or micro-optical components. For building optical modules from such miniaturized components the machine follows an active alignment approach.



AutoAlign System



Machine, AL500-AA

## Process Control Master Powerful Machine and Process Software

- Freely programmable machine processes
- User friendly user interface
- Line based process programming
- Recipe based management of process parameters
- Algorithms for active assembly
- SQL data base based storage of process parameters and flexible data import and export
- Component tracking
- Remote service and control via internet
- Same software on all ficonTEC machines for consistent look and feel of machine programming and operation

## What we do

ficonTEC designs and produces high precision production equipment for the assembling or testing of components.

We are the market leader when it comes to automated assembly or test of micro-optics or opto-electronics such as laser diode manufacture, medical technology, security and defense engineering, as well as telecommunication.



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### ISO 9001 Certification

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