Fiber-optic production machines available as flexible, stand-alone table systems for R&D and process development, and as high-precision, modular assembly cells complete with production-optimized housing layout for high-volume manufacturing.

**NEW**
Next-generation FIBERLINE fiber-optic production systems
Fiber-optic component & device production

The FiberLINE family of systems are designed for production of all fiber-optic and waveguide-based components and devices. They can be flexibly configured for all fiber attach tasks, including fiber & fiber-array connectorization, fiber align-&-attach to waveguides and even silicon photonics packaging. They uniquely combine fast-active optical alignment capability and modular attachment configurations with a tried and tested software control interface, all in an industry-proven design.

Just as other product families, FiberLINE systems also utilize our AutoAlign multi-axis motion systems – high-end translational and rotational stages with multiple degrees-of-freedom (from 3 up to 12 or more). Combined with our state-of-the-art real-time motion controllers, they guarantee easy and accurate sub-µm pivot-point positioning and alignment. FiberLINE’s modular and expandable concept is also customizable with a range of optional modules providing additional functionality, including testing or qualification (F1200 only).

Software Control

PROCESS CONTROL MASTER (PCM) is our user-friendly and process-oriented software control interface that is shipped with all turn-key stand-alone systems and multiple machine configurations. PCM features all machine vision, high-resolution positioning and system management routines required to reliably and repeatably drive align-&-attach process hardware. PCM also comes already fully enabled for automated electro-optical test and characterization tasks.

PCM also monitors and logs single system or production line performance, and can even sync parallel lines remotely. New for 2020 is an optional AI-derived machine learning layer to monitor, collate and analyze process data and operational-critical process steps, thus simplifying the path to establishing process metrics and to optimizing overall system performance.
Key features: F300

- Manual or semi-automated fiber-optic assembly
- Custom fiber pick-ups and chucks
- Closed-loop fast-active alignment
- UV epoxy dispensing, curing & shrinkage control
- All common fiber connectors types & laser wavelengths

Key features F1200: (supplemental to F300)

- Fully-automated assembly & handling
- Custom vacuum tools, thermal epoxy
- Pick-&-place, feed IN/OUT options
- Single/dual conveyor
- Chip & wafer-level handling and processing
- Optional beam test & characterization

Flexible, modular & (re-)configurable

- State-of-the-art feed IN/OUT options
- FAB & HVM-ready – scalable and parallelizable
- Single systems slot into existing production lines
- Daisy-chain multiple systems for production segments
- Operate & monitor single, and sync parallel lines remotely
- Add and/or swap modules to re-configure & re-purpose

www.ficontec.com
### Core system specifications

<table>
<thead>
<tr>
<th></th>
<th>F300</th>
<th>F1200</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motion system</strong></td>
<td>gantry system with minimum 3-axis high-precision alignment*</td>
<td>gantry system with minimum 6-axis high-precision alignment*</td>
</tr>
<tr>
<td><strong>Handling options</strong></td>
<td>none</td>
<td>single or dual conveyor</td>
</tr>
<tr>
<td><strong>Wafer capable</strong></td>
<td>no</td>
<td>up to 6”</td>
</tr>
<tr>
<td><strong>Machine vision</strong></td>
<td>standard/dual positioning and observation camera options</td>
<td></td>
</tr>
<tr>
<td><strong>Feed options</strong></td>
<td>none</td>
<td>suitable for Jedecc or Auer boats, or for customer trays</td>
</tr>
<tr>
<td><strong>Software features</strong></td>
<td>ergonomic, flexible and powerful process software – extended operator-less control – remote control server option</td>
<td>suitable for Jedecc or Auer boats, or for customer trays</td>
</tr>
<tr>
<td><strong>Physical features</strong></td>
<td>table system w/o enclosure</td>
<td>suitable for Jedecc or Auer boats, or for customer trays</td>
</tr>
<tr>
<td><strong>Cleanroom compliance</strong></td>
<td>400 VAC (or country specific), air/vacuum, 100 Mbit/s network</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>1500 x 1000 x 1500/1800</td>
<td>1200 x 1200 x 1600/2000</td>
</tr>
<tr>
<td><strong>Weight (typ., kg)</strong></td>
<td>700</td>
<td>1800</td>
</tr>
</tbody>
</table>

* alternative multi-axis configurations optional  ** others available on request

FIBERLINE F1200 systems are suitable for applications in high-volume manufacturing (HVM). Custom systems and special purpose cells and robotic systems can be flexibly designed and incorporated to suit customer requirements. Automated fiber handling functionality is available in other product lines on request.

---

**What we do**

ficonTEC is a recognized market leader for automated assembly and testing systems for high-end opto-electronic components and photonic devices, including PICs. Considerable process capability and dedicated assembly technologies have been accumulated in serving requirements for telecom and datacom, high-power diode laser assembly, micro-optical systems, sensing from bio-med to automotive to IoT, and more.

A unique and modular approach to production equipment design means that each system delivered is the automated and optimized embodiment of a customer-defined process.

**Contact us**

ficonTEC Service GmbH
Achim, Germany

T +49 4202 51160-0
info@ficontec.com

For ficonTEC subsidiaries and distributors around the globe:

www.ficontec.com/locations

---

**What we do**

ficonTEC is a recognized market leader for automated assembly and testing systems for high-end opto-electronic components and photonic devices, including PICs. Considerable process capability and dedicated assembly technologies have been accumulated in serving requirements for telecom and datacom, high-power diode laser assembly, micro-optical systems, sensing from bio-med to automotive to IoT, and more.

A unique and modular approach to production equipment design means that each system delivered is the automated and optimized embodiment of a customer-defined process.

**Contact us**

ficonTEC Service GmbH
Achim, Germany

T +49 4202 51160-0
info@ficontec.com

For ficonTEC subsidiaries and distributors around the globe:

www.ficontec.com/locations

---

**What we do**

ficonTEC is a recognized market leader for automated assembly and testing systems for high-end opto-electronic components and photonic devices, including PICs. Considerable process capability and dedicated assembly technologies have been accumulated in serving requirements for telecom and datacom, high-power diode laser assembly, micro-optical systems, sensing from bio-med to automotive to IoT, and more.

A unique and modular approach to production equipment design means that each system delivered is the automated and optimized embodiment of a customer-defined process.

**Contact us**

ficonTEC Service GmbH
Achim, Germany

T +49 4202 51160-0
info@ficontec.com

For ficonTEC subsidiaries and distributors around the globe:

www.ficontec.com/locations

---

**What we do**

ficonTEC is a recognized market leader for automated assembly and testing systems for high-end opto-electronic components and photonic devices, including PICs. Considerable process capability and dedicated assembly technologies have been accumulated in serving requirements for telecom and datacom, high-power diode laser assembly, micro-optical systems, sensing from bio-med to automotive to IoT, and more.

A unique and modular approach to production equipment design means that each system delivered is the automated and optimized embodiment of a customer-defined process.

**Contact us**

ficonTEC Service GmbH
Achim, Germany

T +49 4202 51160-0
info@ficontec.com

For ficonTEC subsidiaries and distributors around the globe:

www.ficontec.com/locations

---

**What we do**

ficonTEC is a recognized market leader for automated assembly and testing systems for high-end opto-electronic components and photonic devices, including PICs. Considerable process capability and dedicated assembly technologies have been accumulated in serving requirements for telecom and datacom, high-power diode laser assembly, micro-optical systems, sensing from bio-med to automotive to IoT, and more.

A unique and modular approach to production equipment design means that each system delivered is the automated and optimized embodiment of a customer-defined process.

**Contact us**

ficonTEC Service GmbH
Achim, Germany

T +49 4202 51160-0
info@ficontec.com

For ficonTEC subsidiaries and distributors around the globe:

www.ficontec.com/locations