BL300
Small Footprint Eutectic Die Bonder
Typical Tasks

- Eutectic die soldering
- Chip to chip bonding
- Chip to substrate soldering
- Pick and place
- Die sorting

The machines of ficonTEC’s 300 series are small footprint yet high precision die bonders. They are designed to break down complex assembly processes into standardized recurring sub-processes for low cost of ownership.

The BL300 is an automotive eutectic die bonder. It can be equipped with a conventional heating plate or a state of the art laser soldering module.

**ProcessControlMaster**

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
**Key Features**

- Machine vision guided fully automated alignment and attach
- Fully automatic process
- Compact footprint
- Reduced complexity
- Single task operation
- Automatic calibration routine
- ProcessControlMaster: Extremely powerful and versatile machine software

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**Built for Industrial Usage**

- Rugged steel base production cell
- Hardware interlock circuit for safe operation
- Ergonomic HUI
- Integrated air and vac control
- Operation console for comfort access of basic machine function
- Cabinets for electrics and pneumatics
- Laser class 1

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<table>
<thead>
<tr>
<th>Module</th>
<th>Features</th>
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</table>
| **Heating Plate**             | • Ceramic heating plate
                                 | • 10 mm x 10 mm net area                      |
                                 | • Programmable temperature profile            |
| **Laser Soldering Chuck**     | • Fast soldering processes                    |
                                 | • Internal compact laser                      |
                                 | • Individual chuck design                     |
| **Pick-up Tool (PUT)**        | • Different PUTs available                    |
                                 | • Glass, steel, rubber, plastic chosen        |
                                 | for best application                           |
                                 | • Operated with vacuum                         |

**Machine Configuration**

- Maintenance free linear motor driven motion system
- Easy tool exchange for varying component sizes
- Granite machine bed
- Soldering chuck (conventional or laser heating)
- Vacuum release Gelpak field
- Component flipping capability (optional)
- Auto calibration routine
What we do

ficonTEC designs and produces automated production equipment for the assembling or testing of components. We are the market leader in the field of equipment for the assembly or test of micro-optics or opto-electronics such as laser diode manufacture, medical technology, security and defense engineering as well as telecommunications.

Contact us

EUROPE
ficonTEC Service GmbH, Rehland 8, 28832 Achim, Germany
Phone: +49 4202 51160-0, Fax: +49 4202 51160-090
Mail: info@ficontec.com

USA
ficonTEC (USA) Corporation, 25 Calle Canela, San Clemente, CA 92673, USA
Phone: +1 949 388-5800, Fax: +1 949 388-1489
Mail: usa@ficontec.com

ASIA
ficonTEC Trading (Shanghai) Limited Company
Rm. 303, Floor 3, No. 150 Liulin Road, Huangpu District 200021, Shanghai, PRC
Phone: +86-21-5273 0985, Fax: +86-21-5273 0985
Mail: china@ficontec.com

www.ficontec.com

ISO 9001 Certification

ficonTEC Service GmbH is licensed to ISO 9001:2008 certification, by DNV GL/Hamburg, Germany.

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BL300 Specifications

<table>
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<tr>
<th>Features</th>
<th>X, Y, Z Axis</th>
<th>Phi-Z Axis</th>
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</thead>
<tbody>
<tr>
<td><strong>Travel</strong></td>
<td>350, 200, 100 mm</td>
<td>&gt; 90°</td>
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<tr>
<td><strong>Resolution</strong></td>
<td>50 nm</td>
<td>&lt; 2&quot;</td>
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<tr>
<td><strong>Speed</strong></td>
<td>0.5, 0.5, 0.2 m/s</td>
<td>20°/s</td>
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</table>
| **Component Feeding**     | • 4 x 2" Gelpaks or Waffle Trays
                           | • Customized trays |
| **Component Alignment**   | • Machine vision based referencing (+/- 2 µm capability)
                           | • Optical distance sensor alignment (+/- 0.5 µm capability) |
| **Housing and Control**   | • Steel base
                           | • Cover with sliding doors
                           | • Control System with PC
                           | • Displays, Keyboard & Trackball
                           | • Motion Control System for linear and rotary motion system |