

posalux



Technical data

UltraSpeed

UG g-line

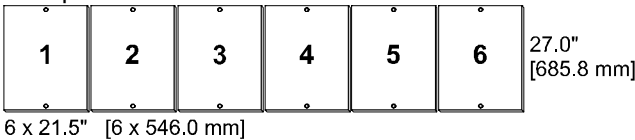
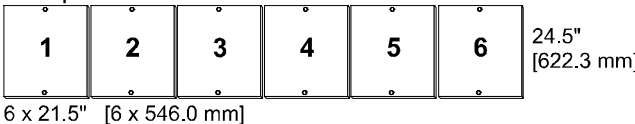
High performance automatic machines for drilling printed circuits boards.

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| UltraSpeed | <i>g-line</i> | | | | | | | | | | |
|---|---|-----------------|-------------------|----------------|----------------|-----------------|------------------|--------------------|--------------------|--------------------|-----------------|
| UG6000 | Drilling machine X axis driven by linear motor Y axis driven by gantry linear motor Z axis driven individually by linear motor Machine controlled by the POSALUX 3000 CNC | | | | | | | | | | |
| <i>UG6000-6</i> | 6 stations, single spindle per station Chain tool-magazine with 6'000 tools, no production interruption while loading / unloading tools | | | | | | | | | | |
| <i>UG6000-6 A</i> | 6 stations, single spindle per station ATC Removable cassette tool-magazine | | | | | | | | | | |
| <i>UG6000-6 D</i> | 6 stations DUAL Double spindles per station allowing the simultaneous machining of the part programm Chain tool-magazine with 6'000 tools, no production interruption while loading / unloading tools | | | | | | | | | | |
| <i>UG6000-6 D A</i> | 6 stations DUAL Double spindles per station allowing the simultaneous machining of the part programm ATC Removable cassette tool-magazine | | | | | | | | | | |
| Machine model and workpiece format | <div style="text-align: right;">UG0001</div> <div style="text-align: center;"> <p>UltraSpeed UG-6 / UG-6 A / UG-6 D</p>  <p>27.0" [685.8 mm]</p> <p>6 x 21.5" [6 x 546.0 mm]</p> </div> <div style="text-align: center;"> <p>UltraSpeed UG-6 D A</p>  <p>24.5" [622.3 mm]</p> <p>6 x 21.5" [6 x 546.0 mm]</p> </div> | | | | | | | | | | |
| Workpiece clamping | 2-point clamping device (<i>prism and slot</i>) for pins. Passive clamping for pin diameter: 3.17 mm [$1/8$ "] Single contact claw for CONTACT DRILL function. Template screw holes provided on table. Clamping device position control by ACCURACY CHECK function. | | | | | | | | | | |
| X axis Speed Acceleration Distance between stations Distance between units | Spindle carrier unit. <80 m min ⁻¹ [3150" min ⁻¹] <10.0 m/s ² \cong 1.02 g UG-6: 551.0 mm [21.69"] UG-6 D: 143.0 mm to 408.0 mm [5.63" to 16.06"] | | | | | | | | | | |
| Y axis Speed Acceleration | Machine table. <80 m min ⁻¹ [3150" min ⁻¹] <12.0 m/s ² \cong 1.22 g | | | | | | | | | | |
| Z axis Working stroke Speed Acceleration Pressure-foot | LZ carrier unit, independent drive system for each spindle. <12.0 mm [.472"] <30 m min ⁻¹ [1181" min ⁻¹] <40 m/s ² \cong 4.1 g 3 positions IPF interchangeable insert. | | | | | | | | | | |
| Synchronous spindle Speed range Drill bit diameter Tool shank diameter | <table border="0"> <tr> <td>PX220S</td> <td>PX250S</td> </tr> <tr> <td>20 to 200 krpm</td> <td>20 to 250 krpm</td> </tr> <tr> <td><6.35 mm [.25"]</td> <td><5.00 mm [.196"]</td> </tr> <tr> <td>3.17 mm [$1/8$"]</td> <td>3.17 mm [$1/8$"]</td> </tr> </table> | PX220S | PX250S | 20 to 200 krpm | 20 to 250 krpm | <6.35 mm [.25"] | <5.00 mm [.196"] | 3.17 mm [$1/8$ "] | 3.17 mm [$1/8$ "] | | |
| PX220S | PX250S | | | | | | | | | | |
| 20 to 200 krpm | 20 to 250 krpm | | | | | | | | | | |
| <6.35 mm [.25"] | <5.00 mm [.196"] | | | | | | | | | | |
| 3.17 mm [$1/8$ "] | 3.17 mm [$1/8$ "] | | | | | | | | | | |
| Asynchronous spindle Restriction Speed range Drill bit diameter Tool shank diameter | <table border="0"> <tr> <td>PS300 - 1/8"</td> <td>PS300 - 2 mm</td> </tr> <tr> <td>—</td> <td>ATC only</td> </tr> <tr> <td>30 to 300 krpm</td> <td>30 to 300 krpm</td> </tr> <tr> <td>3.20 mm [.126"]</td> <td>3.20 mm [.126"]</td> </tr> <tr> <td>3.17 mm [$1/8$"]</td> <td>2.00 mm [.078"]</td> </tr> </table> | PS300 - 1/8" | PS300 - 2 mm | — | ATC only | 30 to 300 krpm | 30 to 300 krpm | 3.20 mm [.126"] | 3.20 mm [.126"] | 3.17 mm [$1/8$ "] | 2.00 mm [.078"] |
| PS300 - 1/8" | PS300 - 2 mm | | | | | | | | | | |
| — | ATC only | | | | | | | | | | |
| 30 to 300 krpm | 30 to 300 krpm | | | | | | | | | | |
| 3.20 mm [.126"] | 3.20 mm [.126"] | | | | | | | | | | |
| 3.17 mm [$1/8$ "] | 2.00 mm [.078"] | | | | | | | | | | |
| ATC tool-magazine Cassette per spindle Tool supply | <table border="0"> <tr> <td>UltraSpeed UG-6</td> <td>UltraSpeed UG-6 D</td> </tr> <tr> <td>6</td> <td>5</td> </tr> </table> <p>By removable cassettes (<i>preparation out of machine</i>).</p> | UltraSpeed UG-6 | UltraSpeed UG-6 D | 6 | 5 | | | | | | |
| UltraSpeed UG-6 | UltraSpeed UG-6 D | | | | | | | | | | |
| 6 | 5 | | | | | | | | | | |
| Chain tool-magazine Capacity Tool supply | 6'000 tools per machine. In EUROMAGAZINES, no production interruption while loading / unloading tools. | | | | | | | | | | |
| Tool measuring and monitoring DL tool measuring station Tool break monitoring | Diameter measuring and length monitoring by optical system. By CONTACT DRILL function in real time. | | | | | | | | | | |

| UltraSpeed | <i>g-line</i> | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|------------------------|--------------------------|----------------------|----------------------|---|---|----------|-----------|----------|------------|----------------------------|----------------------------|----------|----------|--|--|--|--|---|--|-----------|-----------|
| Tools management Joker function | Option. | | | | | | | | | | | | | | | | | | | | | | | |
| POSALUX CNC 3000 | Industrial PC, QNX real-time operating system. Man-machine interface (<i>touch monitor, connection to outside world through network</i>). | | | | | | | | | | | | | | | | | | | | | | | |
| Quality assurance, accuracy X / Y positioning repetition Machining accuracy: drilling Z depth in drilling repetition in blindhole | <table border="0"> <tr> <td>±0.005 mm</td> <td>[±.2 mil"]</td> </tr> <tr> <td>±0.002 mm</td> <td>[±.08 mil"]</td> </tr> <tr> <td>±0.015 mm</td> <td>[±.59 mil"]</td> </tr> <tr> <td>±0.15 mm</td> <td>[±6 mil"]</td> </tr> <tr> <td>±0.01 mm</td> <td>[±.4 mil"]</td> </tr> </table> | | ±0.005 mm | [±.2 mil"] | ±0.002 mm | [±.08 mil"] | ±0.015 mm | [±.59 mil"] | ±0.15 mm | [±6 mil"] | ±0.01 mm | [±.4 mil"] | | | | | | | | | | | | |
| ±0.005 mm | [±.2 mil"] | | | | | | | | | | | | | | | | | | | | | | | |
| ±0.002 mm | [±.08 mil"] | | | | | | | | | | | | | | | | | | | | | | | |
| ±0.015 mm | [±.59 mil"] | | | | | | | | | | | | | | | | | | | | | | | |
| ±0.15 mm | [±6 mil"] | | | | | | | | | | | | | | | | | | | | | | | |
| ±0.01 mm | [±.4 mil"] | | | | | | | | | | | | | | | | | | | | | | | |
| Energy sources Electrical supply Voltage Frequency Installed power, including the the cooling system Pneumatic supply Air pressure Air consumption Air dryer Cooling circuit Choice of heat exchanger Vacuum for tool Ø 0 - 0.15 mm | <table border="0"> <tr> <td>UltraSpeed UG-6</td> <td>UltraSpeed UG-6 D</td> </tr> <tr> <td>3 x 400 V~ + GND</td> <td>3 x 400 V~ + GND</td> </tr> <tr> <td>50 - 60 Hz</td> <td>50 - 60 Hz</td> </tr> <tr> <td>28.0 kVA</td> <td>35.0 kVA</td> </tr> <tr> <td>7.0 bar</td> <td>7.0 bar</td> </tr> <tr> <td>1'050 NI min⁻¹</td> <td>2'050 NI min⁻¹</td> </tr> <tr> <td>Included</td> <td>Included</td> </tr> <tr> <td colspan="2">Two independent cooling loops: spindles and linear motors.</td> </tr> <tr> <td colspan="2">Water-water: heat dissipation by cold water (<i>supplied by the customer</i>).</td> </tr> <tr> <td colspan="2">Water-air: heat dissipation by ventilation.</td> </tr> <tr> <td>-0.22 bar</td> <td>-0.22 bar</td> </tr> </table> | | UltraSpeed UG-6 | UltraSpeed UG-6 D | 3 x 400 V~ + GND | 3 x 400 V~ + GND | 50 - 60 Hz | 50 - 60 Hz | 28.0 kVA | 35.0 kVA | 7.0 bar | 7.0 bar | 1'050 NI min ⁻¹ | 2'050 NI min ⁻¹ | Included | Included | Two independent cooling loops: spindles and linear motors. | | Water-water: heat dissipation by cold water (<i>supplied by the customer</i>). | | Water-air: heat dissipation by ventilation. | | -0.22 bar | -0.22 bar |
| UltraSpeed UG-6 | UltraSpeed UG-6 D | | | | | | | | | | | | | | | | | | | | | | | |
| 3 x 400 V~ + GND | 3 x 400 V~ + GND | | | | | | | | | | | | | | | | | | | | | | | |
| 50 - 60 Hz | 50 - 60 Hz | | | | | | | | | | | | | | | | | | | | | | | |
| 28.0 kVA | 35.0 kVA | | | | | | | | | | | | | | | | | | | | | | | |
| 7.0 bar | 7.0 bar | | | | | | | | | | | | | | | | | | | | | | | |
| 1'050 NI min ⁻¹ | 2'050 NI min ⁻¹ | | | | | | | | | | | | | | | | | | | | | | | |
| Included | Included | | | | | | | | | | | | | | | | | | | | | | | |
| Two independent cooling loops: spindles and linear motors. | | | | | | | | | | | | | | | | | | | | | | | | |
| Water-water: heat dissipation by cold water (<i>supplied by the customer</i>). | | | | | | | | | | | | | | | | | | | | | | | | |
| Water-air: heat dissipation by ventilation. | | | | | | | | | | | | | | | | | | | | | | | | |
| -0.22 bar | -0.22 bar | | | | | | | | | | | | | | | | | | | | | | | |
| Environment Mass Distributed load on the floor (4380 x 1885 mm) | <table border="0"> <tr> <td>UltraSpeed UG-6</td> <td>UltraSpeed UG-6 D</td> </tr> <tr> <td>8'550 kg [18'850 lb]</td> <td>9'300 kg [20'502 lb]</td> </tr> <tr> <td>10'407 N/m² [212.85 lb/sq ft]</td> <td>11'320 N/m² [236.36 lb/sq ft]</td> </tr> </table> | | UltraSpeed UG-6 | UltraSpeed UG-6 D | 8'550 kg [18'850 lb] | 9'300 kg [20'502 lb] | 10'407 N/m ² [212.85 lb/sq ft] | 11'320 N/m ² [236.36 lb/sq ft] | | | | | | | | | | | | | | | | |
| UltraSpeed UG-6 | UltraSpeed UG-6 D | | | | | | | | | | | | | | | | | | | | | | | |
| 8'550 kg [18'850 lb] | 9'300 kg [20'502 lb] | | | | | | | | | | | | | | | | | | | | | | | |
| 10'407 N/m ² [212.85 lb/sq ft] | 11'320 N/m ² [236.36 lb/sq ft] | | | | | | | | | | | | | | | | | | | | | | | |

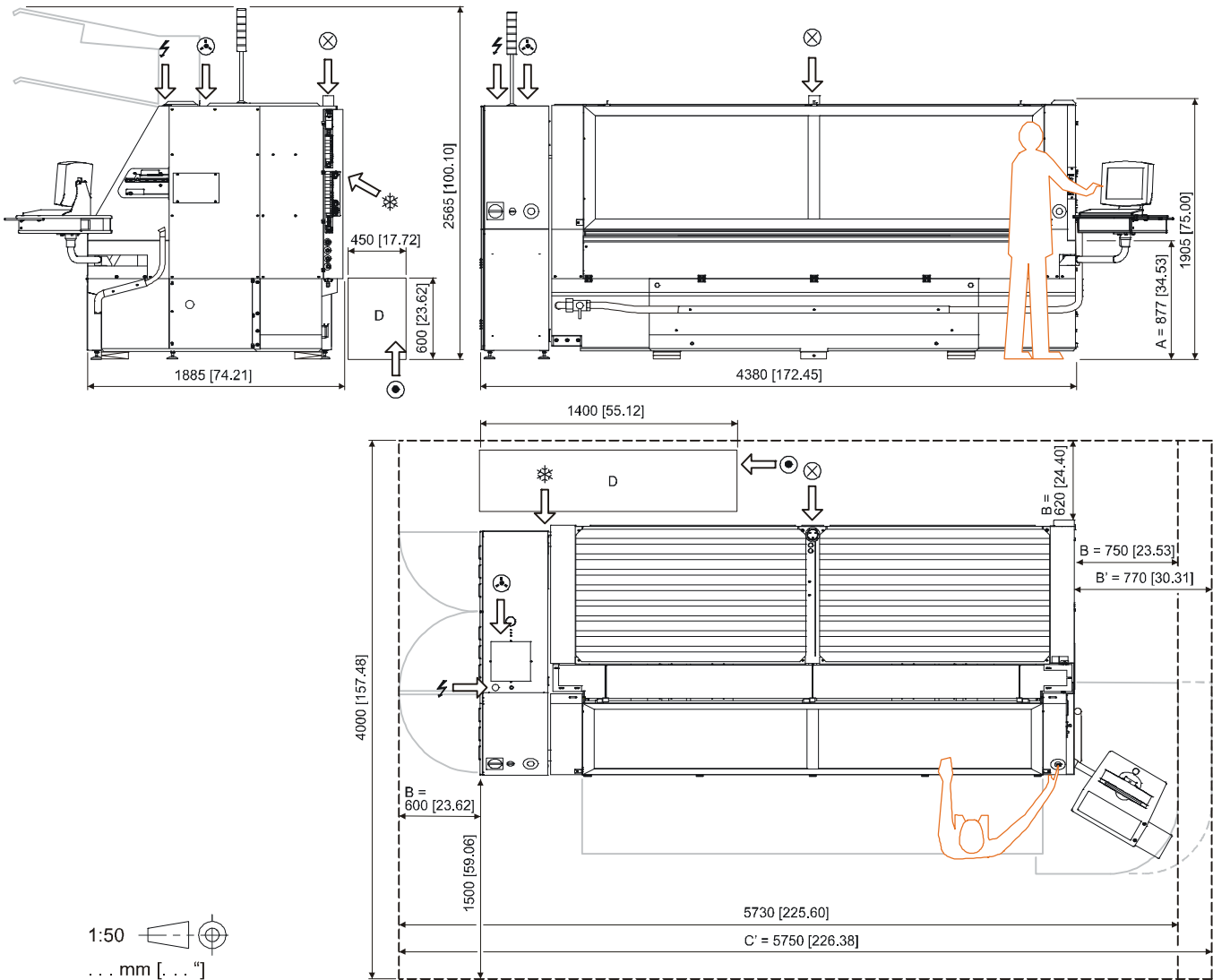
UltraSpeed

g-line

Installation layout

| | | | |
|----|--|----|-----------------|
| A | Distance of machine table from floor | ⚡ | Electricity |
| B | Minimum distances for maintenance work | ⊙ | Air compressed |
| B' | Machine with CCD camera | ❄️ | Cooling circuit |
| C' | Machine with CCD camera | ⊗ | Vacuum system |
| D | Compressed air treatment | ♻️ | Ventilation |

UG0013



For more information: see UG6000 D-I 01 document.

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