# Photon 5G

CNC Fiber Laser Cutting Machine

## DESIGN SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>Photon 5G (3 x 1.5)</th>
<th>Photon 5G (4 x 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Sheet Size</td>
<td>3,000 x 1,500 mm</td>
<td>4,000 x 2,000 mm</td>
</tr>
<tr>
<td>Max. Cut Length (x)</td>
<td>3,100 mm</td>
<td>4,100 mm</td>
</tr>
<tr>
<td>Max. Cut Width (y)</td>
<td>1,550 mm</td>
<td>2,050 mm</td>
</tr>
<tr>
<td>Max. Cut Height (z)</td>
<td>100 mm</td>
<td>100 mm</td>
</tr>
<tr>
<td>Shuttle Table Height</td>
<td>900 mm</td>
<td>900 mm</td>
</tr>
<tr>
<td>Max. Workpiece Weight</td>
<td>890 kg</td>
<td>1,570 kg</td>
</tr>
<tr>
<td>Max. Acceleration</td>
<td>5 g</td>
<td>5 g</td>
</tr>
<tr>
<td>Max. X-Y Vector Speed</td>
<td>325 m/min</td>
<td>325 m/min</td>
</tr>
<tr>
<td>Repeatability</td>
<td>± 0.025 mm</td>
<td>± 0.025 mm</td>
</tr>
<tr>
<td>Positional Accuracy</td>
<td>± 0.050 mm</td>
<td>± 0.050 mm</td>
</tr>
<tr>
<td>Cutting Head</td>
<td>Precitec ProCutter 2.0 Zoom</td>
<td>Precitec ProCutter 2.0 Zoom</td>
</tr>
<tr>
<td>Machine Access</td>
<td>Side</td>
<td>Side</td>
</tr>
<tr>
<td>LiveNest® (1)</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>LiveControl® (1)</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>LiveGuard® Anti-Collision</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>LiveRegen® Power Recovery (2)</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>IRIS® Live Monitoring (1)</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

## LASER SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>4 kW</th>
<th>6 kW</th>
<th>10 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Range</td>
<td>400-4,000 W</td>
<td>600-6,000 W</td>
<td>1,000-10,000 W</td>
</tr>
<tr>
<td>Wavelength (nm)</td>
<td>1,070 ± 5 nm</td>
<td>1,070 ± 5 nm</td>
<td>1,070 ± 5 nm</td>
</tr>
<tr>
<td>Carbon Steel Max. mm (O₂)</td>
<td>20</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Carbon Steel Max. mm (N₂)</td>
<td>8</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Stainless Steel Max. mm (N₂)</td>
<td>15</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Aluminium Max. mm (N₂)</td>
<td>15</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Brass Max. mm (N₂)</td>
<td>8</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Copper Max. mm (N₂)</td>
<td>8</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

## POWER SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>4 kW</th>
<th>6 kW</th>
<th>10 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>415 V, 3 Ph, 50 Hz, PE + N</td>
<td>415 V, 3 Ph, 50 Hz, PE + N</td>
<td>415 V, 3 Ph, 50 Hz, PE + N</td>
</tr>
<tr>
<td>Typ. Cutting Input Current (3)</td>
<td>56 A</td>
<td>76 A</td>
<td>123 A</td>
</tr>
<tr>
<td>Max. Traverse Input Current (4)</td>
<td>82 A</td>
<td>93 A</td>
<td>121 A</td>
</tr>
<tr>
<td>Recommended Protection</td>
<td>100 A</td>
<td>100 A</td>
<td>125 A</td>
</tr>
<tr>
<td>Input Power</td>
<td>40.2-58.9 kVA</td>
<td>54.6-66.8 kVA</td>
<td>87.0-88.4 kVA</td>
</tr>
</tbody>
</table>
Photon 5G
CNC Fiber Laser Cutting Machine

MACHINE DIMENSIONS

<table>
<thead>
<tr>
<th></th>
<th>Photon 5G (3 x 1.5)</th>
<th>Photon 5G (4 x 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>9,999 mm</td>
<td>11,999 mm</td>
</tr>
<tr>
<td>Overall Width (5)</td>
<td>4,439 mm</td>
<td>4,939 mm</td>
</tr>
<tr>
<td>Overall Height (6)</td>
<td>2,362-3,505 mm</td>
<td>2,362-3,721 mm</td>
</tr>
<tr>
<td>Overall Weight (7)</td>
<td>8,000 kg</td>
<td>10,200 kg</td>
</tr>
</tbody>
</table>

INFO

1. If used in conjunction with Procut Professional CAD/CAM Software.
2. LiveRegen® is regenerative; under deceleration, power will be returned to the supply network.
3. Typical cutting input currents are for cutting at full power at 60 m/min on a 3 x 1.5 machine. Actual consumption may be lower depending on cutting parameters and part geometry.
4. Max. traverse input currents are for traversing a full speed on a 3 x 1.5 machine. Actual consumption may be lower.
5. Width shown is for the machine and shuttle table only (filter and laser not included).
6. Height depends on laser power and the respective filtration system.
7. Weight shown is for the machine and shuttle table only (filter and laser not included).
Photon 5G
CNC Fiber Laser Cutting Machine
# Photon One

CNC Fiber Laser Cutting Machine

## DESIGN SPECIFICATIONS

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<thead>
<tr>
<th></th>
<th>Photon One (3x1.5)</th>
<th>Photon One (4x2)</th>
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<tbody>
<tr>
<td>Nominal Sheet Size</td>
<td>3,000 x 1,500 mm</td>
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<td>890 kg</td>
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<tr>
<td>Max. Acceleration</td>
<td>1 g</td>
<td>1 g</td>
</tr>
<tr>
<td>Max. X-Y Vector Speed</td>
<td>170 m/min</td>
<td>170 m/min</td>
</tr>
<tr>
<td>Repeatability</td>
<td>± 0.025 mm</td>
<td>± 0.025 mm</td>
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<tr>
<td>Positional Accuracy</td>
<td>± 0.050 mm</td>
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<tr>
<td>Machine Access</td>
<td>Front</td>
<td>Front</td>
</tr>
<tr>
<td>LiveNest® (1)</td>
<td>✓</td>
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<tr>
<td>Control Range</td>
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<td>300-3,000 W</td>
<td>400-4,000 W</td>
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<td>15</td>
<td>20</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Carbon Steel Max. mm (N2)</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
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<td>8</td>
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<td>72 A</td>
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<td>82 A</td>
<td>93 A</td>
</tr>
<tr>
<td>Recommended Protection</td>
<td>80 A</td>
<td>100 A</td>
<td>100 A</td>
<td>100 A</td>
</tr>
<tr>
<td>Input Power</td>
<td>25.9-51.8 kVA</td>
<td>36.7-58.9 kVA</td>
<td>40.2-58.9 kVA</td>
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</tr>
<tr>
<td>Overall Width (5)</td>
<td>4,410 mm</td>
<td>4,910 mm</td>
</tr>
<tr>
<td>Overall Height (6)</td>
<td>2,305-3,505 mm</td>
<td>2,305-3,721 mm</td>
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