INTRODUCTION

HIGH INTENSITY LASER
MILESTONE IN LASER THERAPY

The BTL High Intensity Laser technology is based on the proven principle of low level laser therapy (LLLT). High power up to 12 W allows deep tissue penetration for unlimited pain therapy. Its maximum power is more than 50 times higher than in LLLT.

The High Intensity Laser stimulates local microcirculation and supports lymph drainage of the pathological area. Combining biostimulation and photomechanical stimulation, the BTL High Intensity Laser therapy actually heals the tissue while providing a powerful and non-addictive form of pain management. The BTL High Intensity Laser system offers very effective treatment for wide range of clinical indications ranging from muscle injuries and tendinopathies to degenerative joint disorders. BTL High Intensity Laser devices are portable, touch screen operated and equipped with automatic therapy protocols for easy and effective operation.

In 2014, the BTL–6000 High Intensity Laser achieved Red Dot Design Award, one of the most respected worldwide awards in product design. BTL–6000 High Intensity Laser won this coveted award due to its superior functionality, level of innovation, formal design quality and technological expertise.

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A REVOLUTION IN THERAPEUTIC LASER TECHNOLOGY
HIGH INTENSITY LASER
PAINLESS AND
NON-SURGICAL TREATMENT
LASEr LIGHT IN HuMAN TISSuE

• The output power is approximately 30–50 times higher compared to the conventional cold laser therapy and is specific with almost unlimited penetration depth. That gives BTL High Intensity Laser ability to stimulate and heal any painful spot in the body.
• Use of pulsed laser with wavelengths close to 1000 nm creates photomechanical wave in the subcutaneous tissue. This photomechanical stimulation inhibits painful sensation and brings immediate pain relief.

MAIN FEATURES

• New generation of technology in laser therapy
• Deeper penetration
• Superior clinical outcome
• Maximum safety

ADVANCED TECHNOLOGY

• Deep tissue penetration with power up to 12 W in continuous mode
• Max. power more than 50 times higher than in LLLT (cold laser therapy)
• Optimum therapeutic effect using 810 / 980 nm or 1064 nm wavelengths
• Pulsed mode for immediate elimination of pain
• Effective and powerful therapy for wide range of clinical indications

LASER LIGHT IN HUMAN TISSUE

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MEDICAL EFFECTS

BIOSTIMULATION MECHANISM
Biostimulation means ability to “bio-stimulate” tissue growth and repair at cellular level. Laser light, due to its monochromacy and coherency, can be precisely adjusted and its behaviour finely pre-defined. 810 / 980 nm and 1064 nm wavelengths are specific for their high action on biological chromophores, allowing maximum therapeutic effect without irradiating unwanted areas.

HIGH PENETRATION DEPTH
The maximum power of 12 W allows extremely high penetration depth of this laser light. The optimum ratio of absorption and penetration depth guarantees efficient stimulation of tissue and pain receptors in up to 12 cm depth. The High Intensity Laser therapy can be easily targeted into any painful spot of the body.

IMMEDIATE AND LONG LASTING PAIN RELIEF
Using laser light wavelengths close to 1000 nm in extremely short pulsed mode gives BTL Laser technology completely new therapeutic feature – ability to create mechanical wave in the tissue. The 1064 nm wavelengths are designed to be extremely well absorbed in liquid based structures. When reaching the skin the laser light creates wavelength-specific photomechanical wave in the human tissue. The mechanical stimulation of free nerve endings blocks pain pathways in the nervous system and brings immediate pain relief.

MICROCIRCULATION SUPPORT
Moreover, this mechanical wave stimulates local microcirculation and supports lymph drainage of the pathological area. Combining biostimulation and photomechanical stimulation, the BTL High Intensity Laser therapy actually heals the tissue while providing a powerful and non-addictive form of pain management.
High Intensity Laser therapy offers effective treatment of wide range clinical protocols ranging from muscle injuries and tendinopathies to degenerative joint diseases.

Painful shoulder – impingement syndrome, tendonitis, rotator cuff injury

Cervicobrachial syndrome

Epicondylitis radialis / ulnaris

Bursitis

Low back pain – osteoarthritis, disc herniation, muscle spasms

Knee arthritis

Muscle strain

Trigger points, muscle spasms

Plantar fasciitis / heel spur

Ankle sprain – tibiotarsal distortion

To help you with the application procedure in these and many other clinical indications, BTL created therapeutic encyclopaedia. This clinical guide explains the therapy step by step for all the common diagnoses.
BASED ON LATEST RESEARCH RESULTS
BTL-6000 HIGH INTENSITY LASER 12 W

FEATURES & BENEFITS

- Deep tissue penetration with power up to 12 W in continuous mode
- Maximum therapeutic effect using 1064 nm wavelength
- Pulsed mode for immediate elimination of pain
- Precise definition of the treatment area
- Automatic laser source calibration
- Preset protocols for easy application
- Built-in therapy guide
- Touch screen interface
- Safety footswitch operation

Applicator
- Advanced ergonomy
- 3 sizes of removable spacers
- Spacers magnetic attachment

Easy operation/portability
- Touch screen interface
- Preset protocols
- Extreme portability (7 kg)

Unique wavelength
- 1064 nm wavelength of Nd:YAG laser
- Optimum ratio of absorption and penetration

Wavelength (nm)

<table>
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<tr>
<th>WAVELENGTH (nm)</th>
<th>RELATIVE ABSORPTION</th>
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<tr>
<td>685</td>
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<tr>
<td>810</td>
<td>0.1</td>
</tr>
<tr>
<td>980</td>
<td>0.8</td>
</tr>
<tr>
<td>1064</td>
<td>1.1</td>
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</tbody>
</table>

Relative absorption of different wavelengths on different tissues:

- Water
- Hemoglobin
- Melanin
BTL-6000 HIGH INTENSITY LASER 7 W

BTL-6000 HIGH INTENSITY LASER 7 W

• 7 W power
• 810 / 980 nm wavelength

FEATURES & BENEFITS

• Pulsed mode for immediate elimination of pain
• Precise definition of the treatment area
• Automatic laser source calibration
• Preset protocols for easy application
• Built-in therapy guide
• Touch screen interface
• Safety footswitch operation

Applicator
• Advanced ergonomy
• 3 sizes of removable spacers
• Spacers magnetic attachment

Easy operation/portability
• Touch screen interface
• Preset protocols

Dual wavelength
Simultaneous emission of two wavelengths at 810 / 980 nm

Wavelength (nm)

<table>
<thead>
<tr>
<th>Wavelength (nm)</th>
<th>Relative Absorption</th>
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<td>685</td>
<td>H₂O</td>
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<tr>
<td>810</td>
<td>hemoglobin</td>
</tr>
<tr>
<td>980</td>
<td>melanin</td>
</tr>
<tr>
<td>1064</td>
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</table>
HIGH INTENSITY LASER ACCESSORIES

COMFORT AND EASY OPERATION

- Design and ergonomy of the applicator
- Three sizes of removable spacers
- Magnetic attachment of the spacers
- Touch screen interface

SAFETY FEATURES

- Footswitch operation
- Navigation light
- Safety ending spacers
- Unit lock
- Safety eyewear
The built-in therapeutic guide is designed to make the therapy both very easy and effective. Those who start with laser therapy will appreciate the preset therapy parameters and pictures that guide them step by step throughout the application. Those more experienced in laser therapy will profit from the advanced clinical recommendations based on the long-term clinical expertise.

**BUILT-IN THERAPEUTIC ENCYCLOPAEDIA:**

- Anatomical pictures
- Step by step therapy protocols
- Preset parameters
MOST COMMON APPLICATIONS

1. Painful shoulder
2. Hip arthrosis
3. Epicondylitis
4. Carpal tunnel syndrome
5. Patellar tendinopathy
6. Low back pain
7. Achilles tendonitis
8. Dorsalgia
TECHNICAL PARAMETERS
HIGH INTENSITY LASER

<table>
<thead>
<tr>
<th>TECHNICAL SPECIFICATIONS</th>
<th>BTL-6000 HIGH INTENSITY LASER 12 W</th>
<th>BTL-6000 HIGH INTENSITY LASER 7 W</th>
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<tbody>
<tr>
<td>Part number</td>
<td>P6000.402</td>
<td>P6000.401</td>
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<tr>
<td>Total output</td>
<td>12 W in continuous mode</td>
<td>7 W in continuous mode</td>
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<tr>
<td>Operating wavelength</td>
<td>1064 nm</td>
<td>810 / 980 nm simultaneously</td>
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<tr>
<td>Mode of operation</td>
<td>continuous, pulsed, single pulse</td>
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<tr>
<td>Number of protocols</td>
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<tr>
<td>Safety features</td>
<td>emergency off switch</td>
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<tr>
<td></td>
<td>operation by footswitch</td>
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</tr>
<tr>
<td></td>
<td>safety interlock</td>
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</tr>
<tr>
<td>Dimensions</td>
<td>320 × 190 × 280 mm</td>
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</tr>
<tr>
<td>Mains supply</td>
<td>230 V / 50–60 Hz, 115 V / 50–60 Hz</td>
<td></td>
</tr>
<tr>
<td>Laser class</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Equipment protection class</td>
<td>IIB</td>
<td></td>
</tr>
<tr>
<td>Standard accessories</td>
<td>Footswitch control, navigation light, calibration block, safety applicator spacer 30 mm, safety eyewear 2 pieces, touch screen pointer</td>
<td></td>
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</tbody>
</table>

Optional accessories

- Part number P6000.412: Safety applicator spacer 10 mm
- Part number P6000.414: Safety applicator spacer 60 mm
- Part number P6000.211: BTL-6000 trolley
- Part number P6000.210: Transportation case

BTL-6000 High Intensity Laser on trolley
BTL-6000 High Intensity Laser

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BTL-6000
HIGH INTENSITY LASER
RED DOT DESIGN AWARD 2014

In 2014, the BTL-6000 High Intensity Laser achieved Red Dot Design Award, one of the most respected worldwide awards in product design.

The Red Dot Design Award is an international product design prize awarded by the Design Zentrum Nordrhein-Westfalen in Essen, Germany. Since 1955 every year a specially selected jury announces the best designs in 3 categories: product design, design agencies, and design concepts. Winners are presented in a grand ceremony and winning products are exhibited in the Red Dot Design Museum, former historical Zollverein Coal Mine Industrial Complex in Essen.