



## **Applications:**

### **Cutting:**

**Plastics** 

- Acrylic signs

**Textiles** 

- Airbags

Wood

- Dieboard

## eCO<sub>2</sub> SLC Series

DC-Excited CO<sub>2</sub> Laser

## **Advantages**

110W - 280W output powers

Excellent beam profile at all power levels

High stability output

10,000+ hour lifetime

Diffusion cooled design

Sealed units with no need for a gas supply

Long life, high vacuum technology

Easy integration

Laser tube only or fully cased system options

HV power supply

Alignment beam option



#### A series of DC-excited CO<sub>2</sub> lasers with unparalleled beam quality, efficiency and longevity.

| Laser Specifications                             | Laser Tube Only                 |                            | Cased Laser                |                    |         |
|--|---------------------------------|----------------------------|----------------------------|--------------------|---------|
| Model  | SLC110                          | SLC140                     | SLC100                     | SLC200             | SLC280  |
| Output Power (specified/max) (W)                 | 110/120                         | 140/150                    | 110/120                    | 220/240            | 280/300 |
| Beam Quality (M²)                                | ≤1.1                            | ≤1.1                       | ≤1.1                       | ≤1.1               | 1.1     |
| 'N' Type:  | Waist located at output coupler |                            |                            |                    |         |
| Beam Waist (2w <sub>0</sub> ) (mm)               | 5.8                             | 5.9                        | 5.8                        | 5.8                | 5.8     |
| Beam Divergence (mrad full angle)                | 2.6                             | 2.5                        | 2.6                        | 2.6                | 2.6     |
| 'B' Type:  | Waist located at output coupler |                            |                            |                    |         |
| Beam Waist (2w <sub>0</sub> ) (mm)               | 4.8                             | 4.8                        | 4.8                        | 4.8                | 4.8     |
| Beam Divergence (mrad full angle)                | 3.1                             | 3.1                        | 3.1                        | 3.1                | 3.1     |
| Pointing Stability (mrad)                        | ≤0.2                            | ≤0.1                       | ≤0.1                       | ≤0.1               | 0.1     |
| Typical Power Stability (± % after warm up)      | 4.0                             | 4.0                        | 4.0                        | 5.0                | 5.0     |
| Polarisation                                     | Random/Linear <sup>1</sup>      | Random/Linear <sup>1</sup> | Random/Linear <sup>1</sup> | Crossed            | Crossed |
| Maximum Strike Voltage (kV)                      | 40                              | 40                         | 40                         | 40                 | 40      |
| Specified Operating Current / Absolute max. (mA) | 32/35                           | 32/35                      | 32/35                      | 32/35              | 32/35   |
| Dynamic Range                                    | 8:1                             | 6:1                        | 100:1 <sup>2</sup>         | 105:1 <sup>2</sup> | 105:1²  |
| Electrical Requirements                          |                                 |                            |                            |                    |         |
| Single Phase 110V/60Hz (A)                       | 6                               | 7                          | 6                          | 13                 | 14      |
| 230V/50Hz (A)                                    | 3                               | 4                          | 3                          | 7                  | 8       |
| Cooling Requirements                             | Water Temperature 15 - 25°C     |                            |                            |                    |         |
| Min / Max. Pressure (bar)                        | 2/5                             | 2/5                        | 2/5                        | 2/5                | 2/5     |
| Cooling (I/min) (de-ionized water)               | 3.6                             | 4.0                        | 3.6                        | 7.2                | 8.0     |
| Water Cooling Capacity (W)                       | 650                             | 700                        | 650                        | 1300               | 1400    |

| Cased Lasers Part Number Selection Guid | e         | xxx = 100, 200 or 280   |
|---|-----------|-------------------------|
| Part №                                  | Base Unit | Visible Alignment Laser |
| SLCxxxS                                 |           |                         |
| SLCxxxA                                 |           |                         |



INVISIBLE LASER RADIATION
AVOID EVE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT
BEST WORST-LASE
BEST WORST-LASE
MAX OUTPUT: JOHN
LASER MEDIUM: CQ,
PULSE DURATION: 0.1ms - CW

Laser Tube Part Number Selection Guide

SLC 140 N P

1 - Power Level - <u>110</u> 110W <u>140</u> 140W

 ${\color{red}2}$  - Waist Location -  ${\color{red}N}$  at output coupler

<u>B</u> 1.15m from output coupler

3 - Polarisation - P linearly polarised [Blank] randomly polarised

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