

TECHNICAL DATA

| MODEL                                                |                                     | SPA2 C-60                                                                         |                                                                        |      |      | SPA2 C-80                                                                         |                                       |      |      | SPA2 C-100                                                                        |                                       |      |       | SPA2 C-80 PULSED                                                                    |                                 |    |    | SPA2 C-125 PULSED |                        |  |  |  |
|------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|---------------------------------------|------|------|-----------------------------------------------------------------------------------|---------------------------------------|------|-------|-------------------------------------------------------------------------------------|---------------------------------|----|----|-------------------|------------------------|--|--|--|
| IMAGE                                                |                                     |  |                                                                        |      |      |  |                                       |      |      |  |                                       |      |       |  |                                 |    |    |                   |                        |  |  |  |
| SYSTEM                                               | Power                               |                                                                                   | 60 W                                                                   |      |      |                                                                                   | 80 W                                  |      |      |                                                                                   | 100 W                                 |      |       |                                                                                     | 80p                             |    |    |                   | 125p                   |  |  |  |
|                                                      | Technology                          |                                                                                   | CO2 Sealed Tube CW                                                     |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   | CO2 Sealed Tube Pulsed |  |  |  |
| WAVE-LENGTH                                          | 10,6 microns for BIO materials      |                                                                                   | Std.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 10,2 microns for FILM materials     |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     | -                               |    |    |                   |                        |  |  |  |
|                                                      | 9,3 microns for PET bottles         |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| MAINS POWER SUPPLY                                   |                                     |                                                                                   | 110 / 240 V AC                                                         |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      |                                     |                                                                                   | 50 / 60 Hz                                                             |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      |                                     |                                                                                   |                                                                        |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      |                                     |                                                                                   | (1 Phase + N) 1600 VA                                                  |      |      |                                                                                   | (1 Phase + N) 1900 VA                 |      |      |                                                                                   | (1 Phase + N) 2100 VA                 |      |       |                                                                                     | (1 Phase + N) 1900 VA           |    |    |                   | (1 Phase + N) 2230 VA  |  |  |  |
| COOLING                                              | Air /Water                          |                                                                                   | Air (SE) / Forced Air (DE)/Water (WD)                                  |      |      |                                                                                   | Air (SE) / Forced Air (DE)/Water (WD) |      |      |                                                                                   | Air (SE) / Forced Air (DE)/Water (WD) |      |       |                                                                                     | Water                           |    |    |                   | Water                  |  |  |  |
|                                                      | Filtered Blower (350m3/h)           |                                                                                   | Opt. (DE)                                                              |      |      |                                                                                   | Opt. (DE)                             |      |      |                                                                                   | -                                     |      |       |                                                                                     | -                               |    |    |                   | -                      |  |  |  |
|                                                      | TCU                                 |                                                                                   | Opt. (DE)                                                              |      |      |                                                                                   | Opt. (DE)                             |      |      |                                                                                   | Opt. (DE)                             |      |       |                                                                                     | -                               |    |    |                   | -                      |  |  |  |
| WARMING                                              | Chiller                             |                                                                                   | 1000W (WD)                                                             |      |      |                                                                                   | 1500W (WD)                            |      |      |                                                                                   | 2000W (WD)                            |      |       |                                                                                     | 2000 W                          |    |    |                   | 2500 W                 |  |  |  |
|                                                      | Warming Blower                      |                                                                                   | Opt. (DE)                                                              |      |      |                                                                                   | Opt. (DE)                             |      |      |                                                                                   | Opt. (DE)                             |      |       |                                                                                     | -                               |    |    |                   | -                      |  |  |  |
| FOCAL SPECIFICATIONS FOR LENSES with BE for XQS Head | M. Area                             | WD                                                                                | FL                                                                     | BD   | PD   | BD                                                                                | PD                                    | BD   | PD   | BD                                                                                | PD                                    | BD   | PD    | BD                                                                                  | PD                              | BD | PD |                   |                        |  |  |  |
|                                                      | 40x40                               | 60 mm                                                                             | 65 mm                                                                  | 191  | 209  | 191                                                                               | 278                                   | 211  | 287  | 175                                                                               | 331                                   | 175  | 517   |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 60x60                               | 95 mm                                                                             | 95 mm                                                                  | 280  | 97,2 | 280                                                                               | 130                                   | 308  | 134  | 257                                                                               | 154                                   | 257  | 241   |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 75x75                               | 115 mm                                                                            | 125 mm                                                                 | 371  | 55,6 | 371                                                                               | 74,1                                  | 408  | 76,6 | 340                                                                               | 88,2                                  | 340  | 138   |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 100x100                             | 165 mm                                                                            | 160 mm                                                                 | 473  | 34,2 | 473                                                                               | 45,5                                  | 520  | 47,1 | 434                                                                               | 54,2                                  | 434  | 84,7  |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 150x150                             | 235 mm                                                                            | 240 mm                                                                 | 707  | 15,3 | 707                                                                               | 20,4                                  | 777  | 21,1 | 648                                                                               | 24,3                                  | 648  | 37,9  |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 200x200                             | 320 mm                                                                            | 320 mm                                                                 | 946  | 8,5  | 946                                                                               | 11,4                                  | 1041 | 11,8 | 867                                                                               | 13,5                                  | 867  | 21,2  |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 250x250                             | 430 mm                                                                            | 410 mm                                                                 | 1209 | 5,2  | 1209                                                                              | 7,0                                   | 1330 | 7,2  | 1109                                                                              | 8,3                                   | 1109 | 13,0  |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 500x500                             | 700 mm                                                                            | 720 mm                                                                 | 2126 | 1,7  | 2126                                                                              | 2,3                                   | 2339 | 2,3  | 1949                                                                              | 2,7                                   | 1949 | 4,2   |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      |                                     |                                                                                   |                                                                        |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| FOCAL SPECIFICATIONS FOR LENSES with BE for HPD Head | M. Area                             | WD                                                                                | FL                                                                     | BD   | PD   | BD                                                                                | PD                                    | BD   | PD   | BD                                                                                | PD                                    | BD   | PD    | BD                                                                                  | PD                              | BD | PD |                   |                        |  |  |  |
|                                                      | 40x40                               | 55 mm                                                                             | 65 mm                                                                  | 120  | 532  | 120                                                                               | 710                                   | 132  | 733  | 88                                                                                | 620                                   | 88   | 968   |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 60x60                               | 85 mm                                                                             | 95 mm                                                                  | 175  | 250  | 175                                                                               | 333                                   | 192  | 344  | 128                                                                               | 251                                   | 128  | 393   |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 100x100                             | 150 mm                                                                            | 150 mm                                                                 | 275  | 101  | 275                                                                               | 135                                   | 302  | 140  | 201                                                                               | 105                                   | 201  | 165   |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 150x150                             | 230 mm                                                                            | 230 mm                                                                 | 424  | 42,5 | 424                                                                               | 56,6                                  | 467  | 58,5 | 311                                                                               | 105,3                                 | 311  | 164,5 |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 200x200                             | 310 mm                                                                            | 300 mm                                                                 | 553  | 25,0 | 553                                                                               | 33,3                                  | 608  | 34,4 | 405                                                                               | 62,0                                  | 405  | 96,9  |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 250x250                             | 400 mm                                                                            | 400 mm                                                                 | 740  | 14,0 | 740                                                                               | 18,6                                  | 814  | 19,2 | 542                                                                               | 34,6                                  | 542  | 54,1  |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 320x320                             | 435 mm                                                                            | 450 mm                                                                 | 828  | 11,1 | 828                                                                               | 14,9                                  | 911  | 15,3 | 607                                                                               | 27,6                                  | 607  | 43,1  |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | 500x500                             | 700 mm                                                                            | 715 mm                                                                 | 1319 | 4,4  | 1319                                                                              | 5,9                                   | 1451 | 6,1  | 967                                                                               | 10,9                                  | 967  | 17,0  |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      |                                     |                                                                                   |                                                                        |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| MARKING HEAD                                         | XQS Split                           |                                                                                   | Std. (SE, DE)                                                          |      |      |                                                                                   | Std. (SE, DE)                         |      |      |                                                                                   | Std. (SE, DE)                         |      |       |                                                                                     | -                               |    |    |                   | -                      |  |  |  |
|                                                      | HPD Split                           |                                                                                   | Opt. (SE, DE)                                                          |      |      |                                                                                   | Opt. (SE, DE)                         |      |      |                                                                                   | Opt. (SE, DE)                         |      |       |                                                                                     | -                               |    |    |                   | -                      |  |  |  |
|                                                      | XQS Split WD (IP65)                 |                                                                                   | Opt. (SE, DE) / Std. (WD)                                              |      |      |                                                                                   | Opt. (SE, DE) / Std. (WD)             |      |      |                                                                                   | Opt. (SE, DE) / Std. (WD)             |      |       |                                                                                     | Std.                            |    |    |                   | Std.                   |  |  |  |
|                                                      | HPD Split WD (IP65)                 |                                                                                   | Opt                                                                    |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| ACCESSORIES MARKING HEAD                             | Beam Exit at 0°                     |                                                                                   | Opt. (SE, DE)                                                          |      |      |                                                                                   | Opt. (SE, DE)                         |      |      |                                                                                   | Opt. (SE, DE)                         |      |       |                                                                                     | -                               |    |    |                   | -                      |  |  |  |
|                                                      | Beam Exit at 90°                    |                                                                                   | Std.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Split Elbow                         |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Focal Distance Indicator            |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Marking Area Indicator              |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| CONTROL                                              | Touch Screen TSL-V3                 |                                                                                   | Opt. (SE, DE)                                                          |      |      |                                                                                   | Opt. (SE, DE)                         |      |      |                                                                                   | Opt. (SE, DE)                         |      |       |                                                                                     | -                               |    |    |                   | -                      |  |  |  |
|                                                      | Touch Screen TSL-V3 IP65+           |                                                                                   | Std. (WD)                                                              |      |      |                                                                                   | Std. (WD)                             |      |      |                                                                                   | Std. (WD)                             |      |       |                                                                                     | Std.                            |    |    |                   | Std.                   |  |  |  |
|                                                      | PC with Marca Software              |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| SOFTWARE                                             | ScanLinux                           |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | MarcaTouch OS 2.00                  |                                                                                   | Std.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Marca Full Graphics PC Softw.       |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | TCP/IP Protocol                     |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Profinet Protocol                   |                                                                                   | Std.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | OPC-UA Protocol                     |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Internal Barcode Generator          |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| SAFETY                                               | ElectroMechanical Shutter           |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Performance Level d Safety Kit      |                                                                                   | Opt.                                                                   |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| ACCESSORIES                                          |                                     |                                                                                   | Diode Marking Pointer - Encoder Kit - Mounting Support - Photocell Kit |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| ENVIRON-MENTAL CONDITIONS                            | Operating Temperature               |                                                                                   | 15 °C (50 °F) to 40 °C (104 °F)                                        |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Humidity                            |                                                                                   | < 95 %, non-condensing                                                 |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Vibrations                          |                                                                                   | No vibrations                                                          |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
|                                                      | Protection Rate (3 types available) |                                                                                   | SE (Standard Environment)                                              |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     | -                               |    |    |                   |                        |  |  |  |
|                                                      |                                     |                                                                                   | DE (Dusty Environment)                                                 |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     | -                               |    |    |                   |                        |  |  |  |
|                                                      |                                     | WD (Washdown Environment)                                                         |                                                                        |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     |                                 |    |    |                   |                        |  |  |  |
| DIMENSIONS (AxBxC)                                   | Head                                |                                                                                   | -                                                                      |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     | -                               |    |    |                   |                        |  |  |  |
|                                                      | Cabinet                             |                                                                                   | 202 x 650 x 525 mm (SE, DE) / 350 x 243 x 1105 (WD W/O ELBOW)          |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     | 525 x 294 x 1055 mm (W/O ELBOW) |    |    |                   |                        |  |  |  |
| WEIGHT                                               | Net Weight                          |                                                                                   | 28 kg (SE, DE) / 70 kg (WD)                                            |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     | 82 kg                           |    |    |                   |                        |  |  |  |
|                                                      | Gross Weight                        |                                                                                   | 30 kg (SE, DE) / 72 kg (WD)                                            |      |      |                                                                                   |                                       |      |      |                                                                                   |                                       |      |       |                                                                                     | 84 kg                           |    |    |                   |                        |  |  |  |

# SPA2 C ideal for packaged goods

SMART | RELIABLE | FAST

SPA2 C 60W to 125W CO2 lasers are widely used in higher speed packaged goods applications including boxes, bottles and blister packs. They are typically used to code paper and board, glass and ceramics, coated materials, PET and PVC.

- 10.6, 10.2 and 9.3 wavelength lasers are available to meet the coding needs of specific substrates such as film and PET.
- High-powered pulsed lasers (80W & 125W) are available for the highest speed lines enabling print speeds of up to 200,000 bottles/hour.
- DUO dual processor technology enables high-speed and high-quality printing with variable data.
- 10.1-inch touch screen controller with context sensitive HELP and on-line instruction videos including Marca Touch OS.
- Extra protection enclosures are available for dusty (IP54) and washdown (IP65) environments.



**SE** Standard Environment IP31  
C-60W / C-80W / C-100W



**DE** Dusty Environment IP54  
C-60W / C-80W / C-100W



**WD** Washdown IP65  
C-60W / C-80W / C-100W / C-80p / C-125p



## Why Macsa id?

Macsa id is one of the 4 leading companies in the world in coding and marking lasers. It offers the widest range of lasers to code and mark both in the productive sectors (food, beverages, pharmaceutical, healthcare, cosmetics ...) as well as in the industrial ones (industry, automotive, aeronautics, defense, construction materials ...).

Macsa id is recognized as a world leader in technological innovation in lasers for marking and coding. The company invests more than 10% of its turnover in R&D every year.



The most complete range of CO2, Fiber and DPSS lasers on the market

### CO2

Available from 10 to 450W

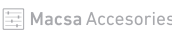
#### PRECISION

Several features including Macsa's proprietary VCS to ensure high print quality even on high-speed production lines.



#### ADAPTABILITY

Wide range of essential and extra accessories to optimise the laser's performance.

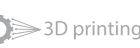


### Fiber

From 20W to 200W

#### VERSATILITY

Integrated into any production line, it can encode over a wide range of materials using 3D printing options.



#### SIMPLICITY

Videos and support material to facilitate its installation and integration.



### Fiber Film

From 20W to 100W

#### RELIABILITY

Production environments can test the reliability of laser systems. SPA2 lasers are designed to operate reliably in dusty or damp environments even when subject to extreme temperatures.



#### CONNECTIVITY

The lasers include the TCP/IP protocol in order to have complete control of the system from most standard communications. The new SPA2 platform includes the integration of the most widely used industrial communication protocols such as Profinet and OPC-UA. These are both available in all models upon request.



## SOFTWARE AND SERVICES



Maintaining Service

Equipment performance

### MONITORING AND PREDICTIVE MAINTENANCE

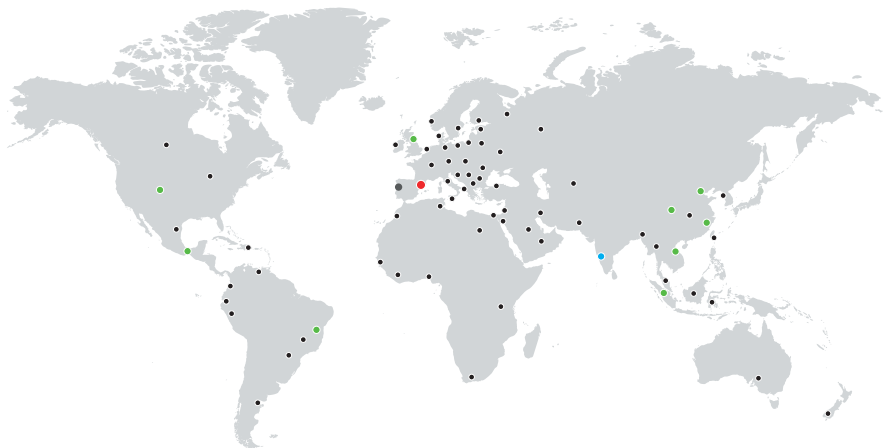
From any place and at any time, data is provided in real time to increase productivity, improve efficiency and reduce downtime. It allows monitoring of the status of the equipment from any remote device which can allow the reception of alerts. IntegraNET allows our service engineers to receive Diagnostics in real time to detect problems before they occur and prevent expensive downtimes.

### REMOTE ASSISTANCE

IntegraNET allows field technicians and Macsa id engineers to interconnect and exchange information through video calls.

### INCREASED EFFICIENCY

The collected data is integrated with the different software of Macsa id modules for production management, traceability and efficiency of the production lines.



Macsa id  
in more than  
80 countries

- MACSA Headquarters
- MACSA Branch Offices
- MACSA Distributors
- MACSA JV



**NO CONSUMABLES**  
A clean technology that does not produce waste.

**ENVIRONMENT FRIENDLY**  
No harmful emissions are generated, thus benefitting the work environment and the planet.

**CLEAN**  
For a cleaner and healthier workspace.

**ENERGY EFFICIENT**  
Maximum quality and coding speed with just the right amount of energy.