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Laser SPA-C

PACKAGING		
Entry	Advanced	High-End

CO2-Marking laser with low maintenance costs

Marking area up to 250 x 250 mm

Beam path 0° / 90°



we're on it.

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Laser marking

The quality of industrial markings with lasers depends on the **reaction** of the marked **material** (color, coating, condition) and which laser is used (performance, wavelength).

Material reaction for CO2-Laser

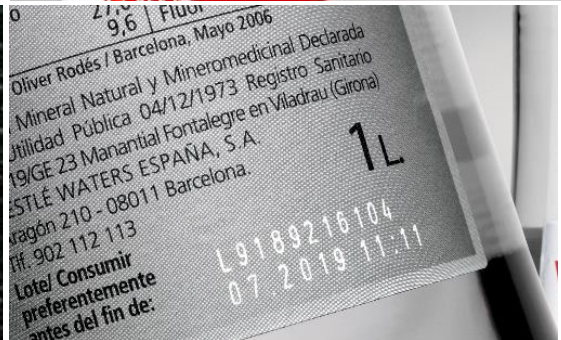
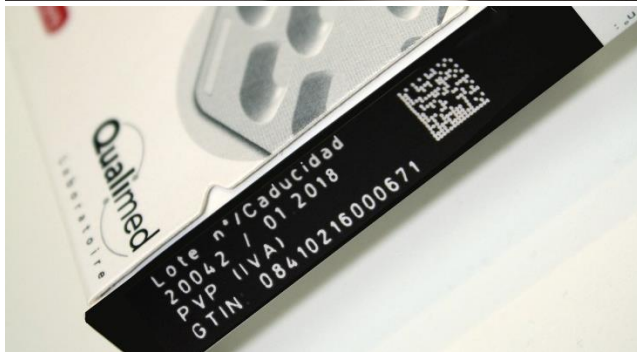
Material group	Material	Wavelength	Reaction
Foil	Aluminum foil	10,6 µm	+
	Polyethylene terephthalate (PET)	10,6 µm	○
	Oriented polypropylene (OPP)	10,6 µm	○
Glass	Glass	10,6 µm	+
	Glass fiber	10,6 µm	+
Wood	Wood	10,6 µm	+
	Thermo-label	10,6 µm	+
	Board	10,6 µm	+
Ceramic	Ceramic	10,6 µm	+
Plastic	Polypropylene (PP)	10,6 µm	+
	Low density polyethylene (LDPE)	10,6 µm	+
	Polystyrene (PS, GPPS, HIPS)	10,6 µm	+
	Acrylnitril-Butadien-Styrol (ABS)	10,6 µm	○
	Polyacetal (POM)	10,6 µm	+
	Polyamide (PA)	10,6 µm	○
	Polycarbonate (PC)	10,6 µm	-
	Polyethylene (PET)	10,6 µm	+
	Polybutylene terephthalate (PBT)	10,6 µm	+
	Polyvinyl chloride (PVC)	10,6 µm	+
	Silicon varnished	10,6 µm	○
	Epoxy resin	10,6 µm	+
	Phenolic resin	10,6 µm	○
	Polyurethane	10,6 µm	+
Metal	Coated metals	10,6 µm	+
	Metals	10,6 µm	-
Organic material	Fruits and vegetables	10,6 µm	+
Paper	Paper	10,6 µm	+
Textile	Textile	10,6 µm	○
Label	Label	10,6 µm	+
Cable	Cable	10,6 µm	○
Tires	Tires	10,6 µm	+

+ = good
 0 = potential
 - = bad

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Application examples

SPA-C; SPA-C-IP



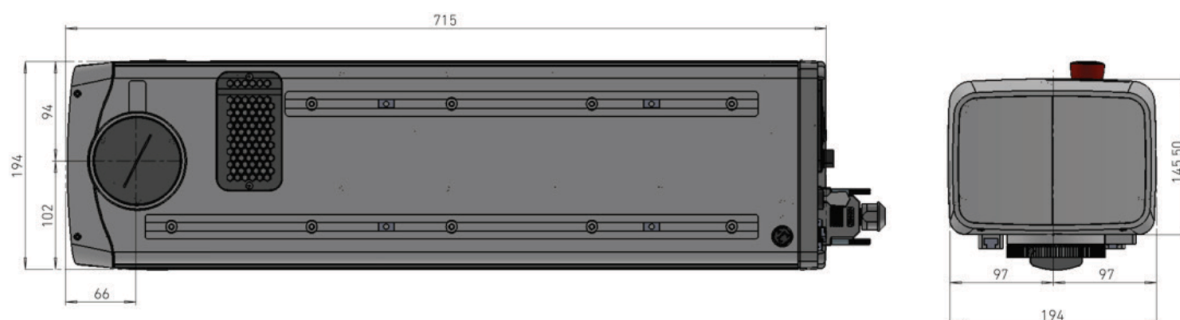
SPA-CL



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SPA-C 10W

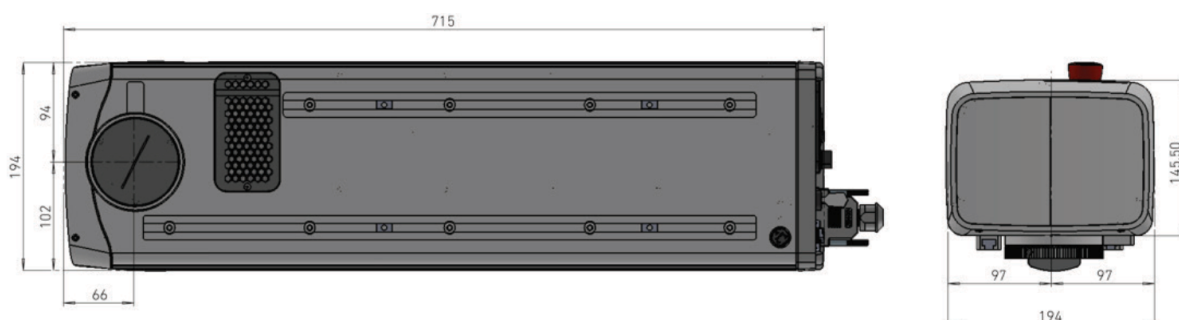
Model	SPA-C			
Name	LASER SPA-C-S10-B90-MD5-W		LASER_SPA-C-S10-B0-MD5-W	
Material number	1040.6504		1040.6505	
Shutter	Electromechanical		Electromechanical	
Beam path	90°		0°	
Performance	10 W			
Wavelength	10,6 µm			
Beam Expander	Without beam expander			
Dimensions (A x B x C)	145,5 x 194 x 715 mm			
Weight	17 kg			
Protection class	IP 54			
Connection values	115 V / 230 V ; 50 Hz / 60 Hz ; 300 VA			
Assembly	Laser, control electronics, computer and scanner are integrated in the laser.			
Environment	Temperature + 15° to + 40° C, relative humidity max. 95 %			
Cooling system	Integrated air cooling			
Control	PC-software, touchscreen terminal			
Interfaces	Ethernet TCP/IP, I/O, USB (RS 232 need adaptor)			
Operating system	ScanLinux V5.2.7			
Speed (1-line)	250 m/min (coding speed can differ depending on size, content and material)			
Lens	Mat. no.	Working space	Working distance	Beam diameter
	1040.6622	40x40 mm	55 mm	301 µm
	1040.6594	60x60 mm	85 mm	439 µm
	1040.6595	75x75 mm	115 mm	577 µm
	1040.6878	90x90 mm	150 mm	676 µm
Pilot laser	1040.6636	Pilot laser for SPA-C 10,6		
Plug	1040.4887	I/O plug DB 44		
	1040.4888	Signal plug photo cell I/O 3-pin M8		
Mounting rail	1040.6657	Mounting rails C		
Software	1008.3223	Software Marca V5.6.9.a and higher		
	1000.0385	Bar code license		
Accessories	Housing, mounting, stand, encoder, light barrier, extraction, ... (for details see data sheet accessories and extraction)			



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SPA-C 10W

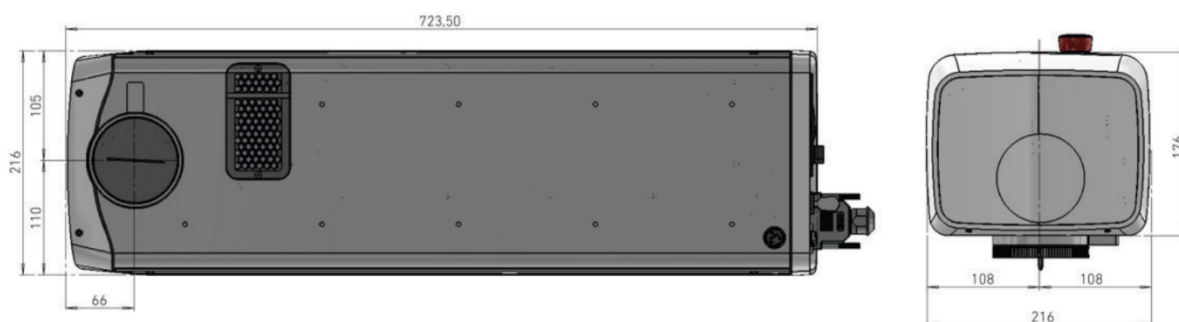
Model	SPA-C			
Name	LASER SPA-C-S10-B90-MD5-B		LASER_SPA-C-S10-B0-MD5-B	
Material number	1040.6503		1040.6506	
Shutter	Electromechanical		Electromechanical	
Beam path	90°		0°	
Performance	10 W			
Wavelength	10,6 µm			
Beam Expander	With beam expander			
Dimensions (A x B x C)	145,5 x 194 x 715 mm			
Weight	17 kg			
Protection class	IP 54			
Connection values	115 V / 230 V ; 50 Hz / 60 Hz ; 300 VA			
Assembly	Laser, control electronics, computer and scanner are integrated in the laser.			
Environment	Temperature + 15° to + 40° C, relative humidity max. 95 %			
Cooling system	integrated air cooling			
Control	PC-software, touchscreen terminal			
Interfaces	Ethernet TCP/IP, I/O, USB (RS 232 need adaptor)			
Operating system	ScanLinux V5.2.7			
Speed (1-line)	250 m/min (coding speed can differ depending on size, content and material)			
Lens	Mat. no.	Working space	Working distance	Beam diameter
	1040.6622	40x40 mm	55 mm	150 µm
	1040.6594	60x60 mm	85 mm	219 µm
	1040.6595	75x75 mm	115 mm	289 µm
	1040.6878	90x90 mm	150 mm	253 µm
	1040.6596	100x100 mm	190 mm	369 µm
	1040.6597	150x150 mm	230 mm	554 µm
	1040.6598	200x200 mm	310 mm	739 µm
	1040.6599	250x250 mm	340 mm	946 µm
Pilot laser	1040.6636	Pilot laser for SPA-C 10,6		
Plug	1040.4887	I/O plug DB 44		
	1040.4888	Signal plug photo cell I/O 3-pin M8		
Mounting rail	1040.6657	Mounting rails C		
Software	1008.3223	Software Marca V5.6.9.a and higher		
	1000.0385	Bar code license		
Accessories	Housing, mounting, stand, encoder, light barrier, extraction, ... (for details see data sheet accessories and extraction)			



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SPA-C 30W

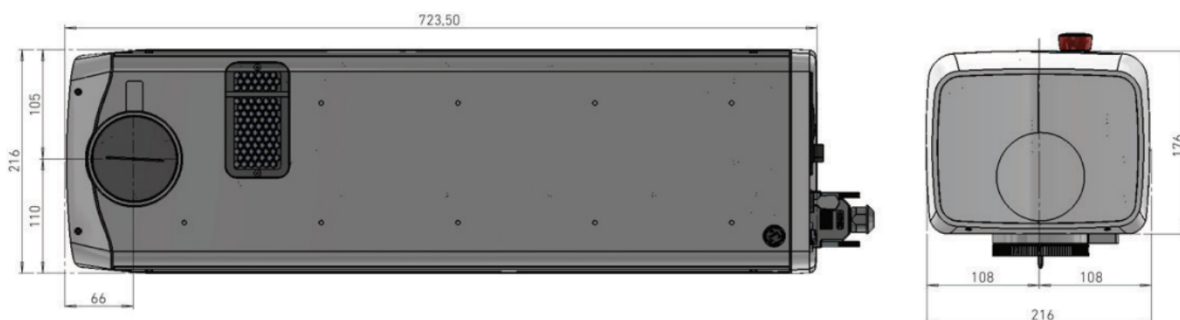
Model	SPA-C			
Name	LASER SPA-C-S30-B90-MD5-W		LASER_SPA-C-S30-B0-MD5-W	
Material number	1040.6510		1040.6513	
Shutter	Electromechanical		Electromechanical	
Beam path	90°		0°	
Performance	30 W			
Wavelength	10,6 µm			
Beam Expander	Without beam expander			
Dimensions (A x B x C)	176 x 216 x 723,5 mm			
Weight	25 kg			
Protection class	IP 54			
Connection values	115 V / 230 V ; 50 Hz / 60 Hz ; 600 VA			
Assembly	Laser, control electronics, computer and scanner are integrated in the laser.			
Environment	Temperature + 15° to + 40° C, relative humidity max. 95 %			
Cooling system	Integrated air cooling			
Control	PC-software, touchscreen terminal			
Interfaces	Ethernet TCP/IP, I/O, USB (RS 232 need adaptor)			
Operating system	ScanLinux V5.2.7			
Speed (1-line)	250 m/min (coding speed can differ depending on size, content and material)			
Lens	Mat. no.	Working space	Working distance	Beam diameter
	1040.6622	40x40 mm	55 mm	420 µm
	1040.6594	60x60 mm	85 mm	614 µm
	1040.6595	75x75 mm	115 mm	808 µm
	1040.6878	90x90 mm	150 mm	676 µm
Pilot laser	1040.6636	Pilot laser for SPA-C 10,6		
Plug	1040.4887	I/O plug DB 44		
	1040.4888	Signal plug photo cell I/O 3-pin M8		
Mounting rail	1040.6657	Mounting rails C		
Software	1008.3223	Software Marca V5.6.9.a and higher		
	1000.0385	Bar code license		
Accessories	Housing, mounting, stand, encoder, light barrier, extraction, ... (for details see data sheet accessories and extraction)			



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SPA-C 30W

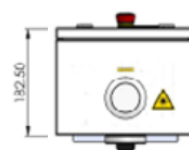
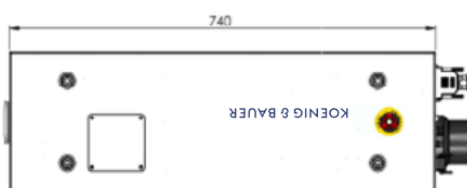
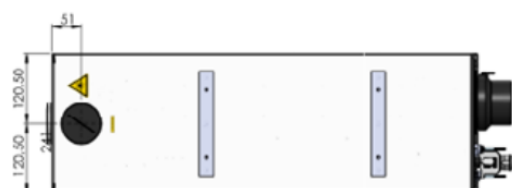
Model	SPA-C			
Name	LASER SPA-C-S30-B90-MD5-B		LASER_SPA-C-S30-B0-MD5-B	
Material number	1040.6512		1040.6514	
Shutter	Electromechanical		Electromechanical	
Beam path	90°		0°	
Performance	30 W			
Wavelength	10,6 µm			
Beam Expander	With beam expander			
Dimensions (A x B x C)	176 x 216 x 723,5 mm			
Weight	25 kg			
Protection class	IP 54			
Connection values	115 V / 230 V ; 50 Hz / 60 Hz ; 600 VA			
Assembly	Laser, control electronics, computer and scanner are integrated in the laser.			
Environment	Temperature + 15° to + 40° C, relative humidity max. 95 %			
Cooling system	Integrated air cooling			
Control	PC-software, touchscreen terminal			
Interfaces	Ethernet TCP/IP, I/O, USB (RS 232 need adaptor)			
Operating system	ScanLinux V5.2.7			
Speed (1-line)	250 m/min (coding speed can differ depending on size, content and material)			
Lens	Mat. no.	Working space	Working distance	Beam diameter
	1040.6622	40x40 mm	55 mm	210 µm
	1040.6594	60x60 mm	85 mm	307 µm
	1040.6595	75x75 mm	115 mm	404 µm
	1040.6878	90x90 mm	150 mm	253 µm
	1040.6596	100x100 mm	190 mm	517 µm
	1040.6597	150x150 mm	230 mm	775 µm
	1040.6598	200x200 mm	310 mm	1034 µm
	1040.6599	250x250 mm	340 mm	1325 µm
Pilot laser	1040.6636	Pilot laser for SPA-C 10,6		
Plug	1040.4887	I/O plug DB 44		
	1040.4888	Signal plug photo cell I/O 3-pin M8		
Mounting rail	1040.6657	Mounting rails C		
Software	1008.3223	Software Marca V5.6.9.a and higher		
	1000.0385	Bar code license		
Accessories	Housing, mounting, stand, encoder, light barrier, extraction, ... (for details see data sheet accessories and extraction)			



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SPA-C-IP 10W

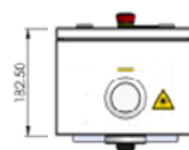
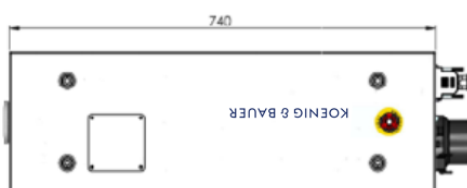
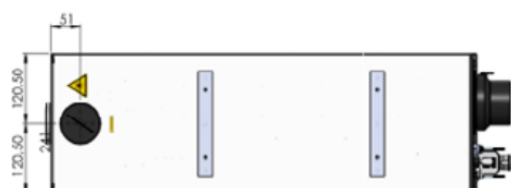
Model	SPA-C-IP			
Name	LASER SPA-C-IP10-B90-MD6-B		LASER_SPA-C-IP10-B0-MD6-B	
Material number	1040.6517		1040.6518	
Shutter	Electromechanical		Electromechanical	
Beam path	90°		0°	
Performance	10 W			
Wavelength	10,6 µm (9,3µm on request)			
Beam Expander	With beam expander			
Dimensions (A x B x C)	182,5 x 241 x 740 mm			
Weight	14 kg			
Protection class	IP 65			
Connection values	115 V / 230 V ; 50 Hz / 60 Hz ; 330 VA			
Assembly	Laser, control electronics, computer and scanner are integrated in the laser.			
Environment	Temperature + 15° to + 40° C, relative humidity max. 95 %			
Cooling system	System	Mat. no.	Pressure	Consumption
	Opt. 1 Vortex cooling unit	On request	2,5 bar	400 lpm
	Opt. 1 Vortex filter	1000.3890	-	-
	Opt. 2 Cooling dryer	On request	2,5 bar	200 lpm
Control	PC-software, touchscreen terminal			
Interfaces	Ethernet TCP/IP, I/O, USB (RS 232 need adaptor)			
Operating system	ScanLinux V5.2.7			
Speed (1-line)	250 m/min (coding speed can differ depending on size, content and material)			
Lens	Mat. no.	Working space	Working distance	Beam diameter
	1000.3818	60x60 mm	85 mm	160 µm
	1000.3819	75x75 mm	115 mm	220 µm
	1000.3820	100x100 mm	190 mm	350 µm
	1000.3821	150x150 mm	230 mm	420 µm
	1000.3822	200x200 mm	310 mm	560 µm
	1000.3823	250x250 mm	400 mm	720 µm
Pilot laser	1039.3946	Pilot laser for SPA-C 10,6		
Plug	1040.4887	I/O plug DB 44		
	1040.4888	Signal plug photo cell I/O 3-pin M8		
Software	1008.3223	Software Marca V5.6.9.a and higher		
	1000.0385	Bar code license		
Accessories	Housing, mounting, stand, encoder, light barrier, extraction, ... (for details see data sheet accessories and extraction)			



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SPA-C-IP 30W

Model	SPA-C-IP			
Name	LASER SPA-C-IP30-B90-MD6-B		LASER_SPA-C-IP30-B0-MD6-B	
Material number	1040.6520		1040.6521	
Shutter	Electromechanical		Electromechanical	
Beam path	90°		0°	
Performance	30 W			
Wavelength	10,6 µm (9,3µm on request)			
Beam Expander	With beam expander			
Dimensions (A x B x C)	182,5 x 241 x 740 mm			
Weight	26 kg			
Protection class	IP 65			
Connection values	115 V / 230 V ; 50 Hz / 60 Hz ; 330 VA			
Assembly	Laser, control electronics, computer and scanner are integrated in the laser.			
Environment	Temperature + 15° to + 40° C, relative humidity max. 95 %			
Cooling system	System	Mat. no.	Pressure	Consumption
	Opt. 1 Vortex cooling unit	On request	2,5 bar	600 lpm
	Opt. 1 Vortex filter	1000.3890	-	-
	Opt. 2 Cooling dryer	On request	2,5 bar	300 lpm
Control	PC-software, touchscreen terminal			
Interfaces	Ethernet TCP/IP, I/O, USB (RS 232 need adaptor)			
Operating system	ScanLinux V5.2.7			
Speed (1-line)	250 m/min (coding speed can differ depending on size, content and material)			
Lens	Mat. no.	Working space	Working distance	Beam diameter
	1000.3818	60x60 mm	85 mm	160 µm
	1000.3819	75x75 mm	115 mm	220 µm
	1000.3820	100x100 mm	190 mm	350 µm
	1000.3821	150x150 mm	230 mm	420 µm
	1000.3822	200x200 mm	310 mm	560 µm
	1000.3823	250x250 mm	400 mm	720 µm
Pilot laser	1039.3946	Pilot laser for SPA-C 10,6		
Plug	1040.4887	I/O plug DB 44		
	1040.4888	Signal plug photo cell I/O 3-pin M8		
Software	1008.3223	Software Marca V5.6.9.a and higher		
	1000.0385	Bar code license		
Accessories	Housing, mounting, stand, encoder, light barrier, extraction, ... (for details see data sheet accessories and extraction)			



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SPA-CL

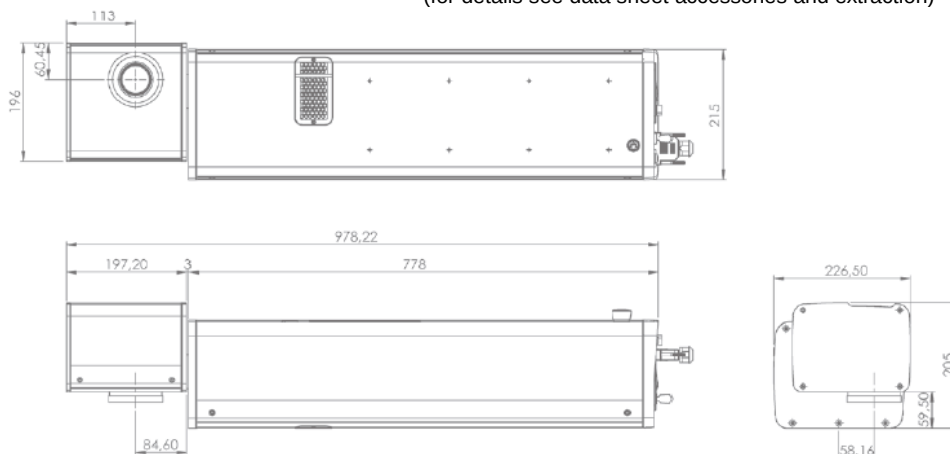
Model	SPA-CL
Name	LASER_SPA-CL-S30-B90-MD5-B
Material number	1040.6523
Shutter	Electromechanical
Beam path	90°
Performance	30 W
Wavelength	10,6 µm
Beam Expander	With beam expander
Dimensions (A x B x C)	Head: 171x196x145mm; Body: 215x205x745mm
Weight	32 kg
Protection class	IP 54
Connection values	230 V ; 50 Hz ; 600W
Assembly	Laser, control electronics, computer and scanner are integrated in the laser.
Environment	Temperature + 15° to + 40° C, relative humidity max. 95 %
Cooling system	Integrated air cooling
Control	PC-software, touchscreen terminal
Interfaces	Ethernet TCP/IP, I/O, USB (RS 232 need adaptor)
Operating system	ScanLinux V5.2.7
Speed (1-line)	250 m/min (coding speed can differ depending on size, content and material)

Lens	Mat. no.	Working space	Working distance	Beam diameter
	1039.2703	100x100 mm	150 mm	128 µm
	1040.6604	150x150 mm	230 mm	203 µm
	1040.6605	200x200 mm	310 mm	405 µm
	1040.6606	250x250 mm	400 mm	540 µm
	1039.5156	320x320 mm	439 mm	461 µm
	1039.5157	500x500 mm	709 mm	737 µm
	1040.6593	800x800 mm	1.139 mm	1.177 µm

Pilot laser	On request	Pilot laser for SPA-C 10.6
Plug	1040.4887	I/O plug DB 44
	1040.4888	Signal plug photo cell I/O 3-pin M8
Software	1008.3223	Software Marca V5.6.9.a and higher
	1000.0385	Bar code license

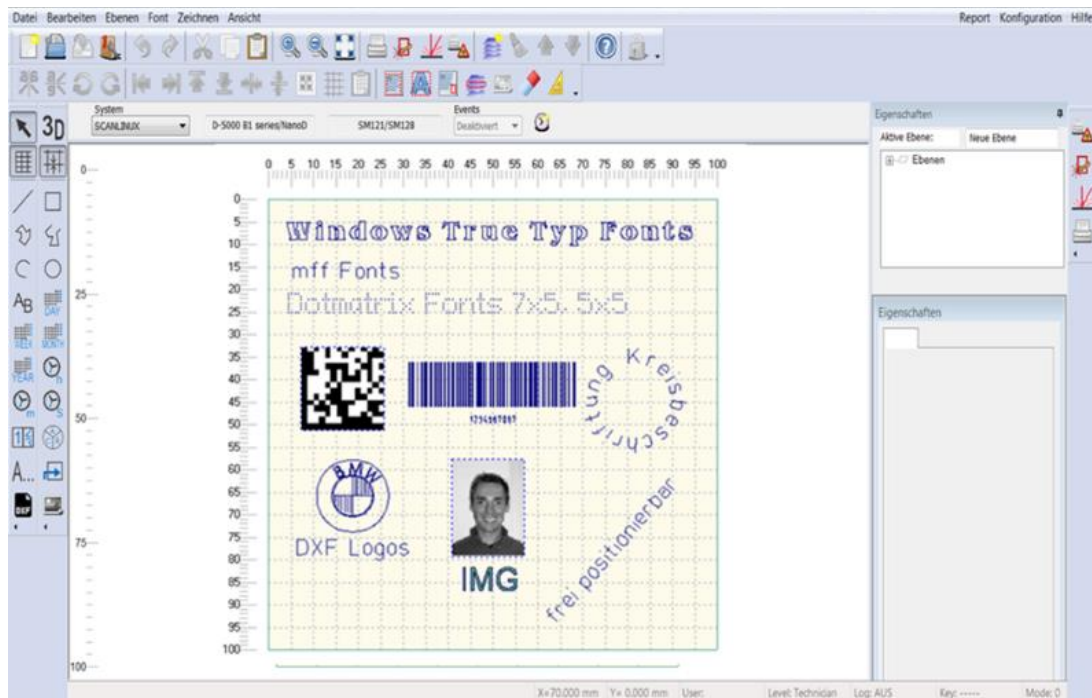
Accessories

Housing, mounting, stand, encoder, light barrier, extraction, ...
(for details see data sheet accessories and extraction)



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Software



- Marca PC software with windows interface (7, 8, 10)
- WYSIWYG display
- Freely selectable character size and alignment
- Variable date and time formats
- Serial numbering or text passages
- Text list
- Circular marking
- Logos or graphics loaded in DXF or IMG format
- Bar codes, 2D codes
- True Type Fonts, Unicode, MFF Fonts, Crystal Fonts 5x5, 7x5
- Database printing
- Logos and graphics can be created via integrated vector graphic function
- Font Editor
- Multilayer function
- Event handler
- And much more

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Order Code

LASER		SPA-C		S	10	B	90	M	D	5	W
Typ											
LASER	Laser										
Model											
SPA-C	SPA-C										
SPA-CL	SPA-C Large										
Option											
S	Standard										
IP	Schutzart IP65										
Power											
10	10 Watt										
30	30 Watt										
80	80 Watt (nur SPA-CL)										
Wellenlänge											
B	10,6 µm										
Strahlaustritt											
90	90°										
0	0°										
Shutter											
M	Electromechanic										
Schutzart											
2	IP 22 (nur SPA-CL)										
5	IP 54										
6	IP 65										
Beamexpander											
W	ohne Beamexpander (nur SPA-C)										
B	mit Beamexpander										

Quality

ISO-certification by DIN EN ISO 9001-2015

Made in Europe.

Our quality requirements include the process of continuous improvement. Design and technical changes are reserved without previous announcement.

Contact

Koenig & Bauer Coding GmbH

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97209 Veitshöchheim, Germany