

封閉防護型可調脈衝雷射標刻機

Cover Protection Pulse Adjustable

Marco

SME-MC雷射標刻機

SME-MC Laser Marking Machine



Marco-SME-MC Series
Standard Cover Protection Cabinet



■ 本機結合了特殊可調脈衝(MOPAS)光纖雷射源、雷射控制卡、嵌入式PIC與電源模組，整合於具備防護罩的機櫃中，符合美國FDA Class 1安全等級。可透過電腦滑鼠、外接啟動停止控制盒或腳踏開關操作。模組化設計使系統操作簡便、便於搬運與維護。

■ Marco-SME20MC雷射標刻機，有兩種形式：手動開關與電動開關。特別設計的門體平衡系統，使門可輕鬆開關，並能在任何位置停留而不需施力。其掃描頭、雷射源與控制機架為分離式設計，無需電腦主機，只需連接外部鍵盤、滑鼠及VGA螢幕即可操作。整體機櫃重量約64公斤，附有把手，可方便移動至任意工作桌上操作。

■ 具備可調脈寬(MOPAS)與高頻調整功能(最高達4000kHz)，可針對不同材質進行最佳化標刻，提供高峰值雷射功率輸出。適用於各類金屬與非金屬材料，如鋼、銅、鋁、部分塑膠及陶瓷等之彈性標刻應用尤其是醫療器械的標刻。

■ 所有SME-20MC系列的雷射源皆須通過老化測試，以確保長期穩定運作。所搭配的天麗工業公司開發的掃描頭以其高壽命與高穩定性而著稱。搭配Marco5.1標刻軟體與Marco雷射控制卡，操作簡單且功能多樣，可依需求進行各種標刻方式。整體標刻品質、穩定性與壽命均優於一般市售雷射標刻機。

■ Combining special pulse adjustable (MOPAS) fiber source with laser control card, embedded IPC and power pack to a cover protection cabinet for FDA level 1 safety marking laser. Marking with either PC mouse or outside connection start-stop box or foot switch, it's module design make the system easy operation, carry and maintenance.

■ Marco-SME20MC laser marking machine have two type, door opening by hand or by motor. Special designed door balancing system make it easy to close and open and stop in any position without force. it separate scanner head, source and control rack. No need PC, just use remote keyboard, mouse and outside VGA monitor to make it work. The cabinet weight around 64 Kg with handle to move to any table. Adjustable pulse (MOPAS) with high adjustable frequency (4000KHz) can use for different material marking with high peak power. It is used for flexible marking on metallic and nonmetallic material such as steel, copper, aluminum or some plastic and ceramic marking.

■ All of the laser source of SME-20MC should pass aging test to assure a long working life, the TianLee scanner head proved to have long service life and stability. Our Marco5.1 marking software with control card is easy operation with many function to make marking easy with different way, therefore, the marking quality, stability and life better than other laser marking machine.

Application



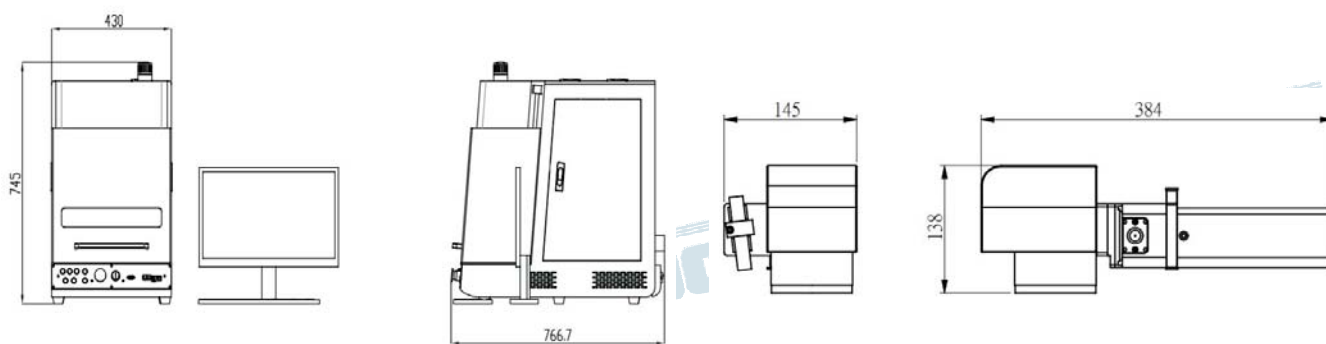
鈦合金及航太零件
Aerospace Parts



塑膠零件
Plastic Parts

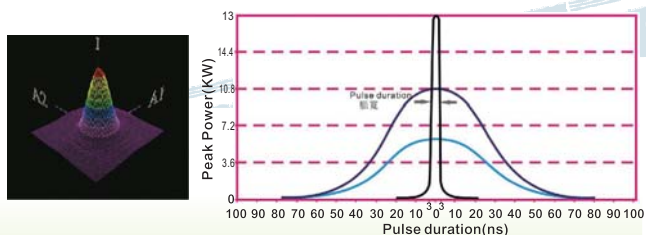


鋁合金二維碼
QR Code in Aluminum Parts



SME-MC雷射 產品技術規範 Fiber Laser Specification

型號/規範 Type/Specification	SME-20MC	SME-60MC
平均輸出功率 Average Power	20W+-5%	60W+-5%
雷射波長 Wavelength	1064nm	
光束品質與可調頻率 Beam Quality & Modulation	M2<1.4 3-4000KHz	
脈寬 Pulse Width	2-500ns (脈寬可調/Pulse adjustable)	2-350ns (脈寬可調/Pulse adjustable)
瞬間最大功率 Pulse Energy/Peak Power	1.1mj / Max.13Kw(@8ns,250KHz)	2mj / Max.35Kw(100ns)
重覆精度 Repeat Accuracy	+-0.01mm	
光點大小 Beam Size	0.04-0.05 mm Dia (標準F163鏡頭 110X110 標刻範圍) (STD. F163 Len, 110x110Marking area)	
標刻位置指示 Aiming Beam	3mW @635nm二極體紅光指示位置 1mW @635nm with red diode light for marking position	
電源 Main Power Supply	單相電源 100-240VAV/50/60Hz Single phase 100-240VAV/50/60Hz	
消耗功率 Power Consumption	<600W	<865W
工作溫度 Operating Temp.	0℃ 至 + 35℃	
冷卻方式 Cooling Way	空氣冷卻 / Air to Air	
內部工作桌尺寸 Interior Working Table Size	400mmX230mm	
尺寸,重量 Dimension & Weight	766.7mmX430mmX745mm 64Kg	
振鏡聚焦頭尺寸及標刻範圍 Focus Len Size And Marking Area	F163 110X110 mm (STD) F254 180X180mm F330 230X230mm	



如左圖精細的光束質量(<1.4),如右圖的可調脈寬至高瞬間功率的冷光標刻成為可能.因此可以在更大範圍內實現對各種材料的標刻.

Left picture show the perfect beam quality (<1.4) of this laser and the right picture show the adjustable pulse make high peak power (50Kw),therefore,it can use for cold marking of different material in fast heat dissipation to protect the damage of the material and make the high marking quality.