



## MACO CL 4

*The compact and powerful one*

The MACO CL 4 series provides the right laser power for every welding job. It is the ideal partner for the ALT laser work table, but it can also be easily integrated into existing machine installations. The moveable laser head can be positioned to suit the welding task. The innovative turn-and-tilt optics further reduces set-up time on the tool or mould.

Technical Data	MACO 75CL4	MACO 120 CL4	MACO 150 CL4	MACO 200 CL4	MACO 300 CL4
<b>Laser</b>					
Wavelength	1064 nm	1064 nm	1064 nm	1064 nm	1064 nm
Average Power	75 W	120 W	150 W	200 W	300 W
Peak pulse power	5 kW	9 kW	10 kW	9 kW	10 kW
Pulse Energy	50 mJ - 50 J	100 mJ - 75 J	100 mJ- 100 J	150 mJ - 90 - J	80J
Pulse duration	0.5 - 20 ms	0.5 - 20 ms	0.5 - 20 ms	0.5 - 20 ms	0.1 - 20 ms
Pulse frequency	single pulse - 20/30 Hz		single pulse - 2030 Hz		100Hz
Welding spot Ø	0,3 - 2,2 mm	0,3 - 2,2 mm	0,3 - 2,2 mm	0,3 - 2,2 mm	0,3 - 2,2 mm
Pulse shaping	adjustable power-shaping within a laser pulse				
Control	user-specific operation with up to 128 parameter sets				
Focussing lens	150 mm	150 mm	150 mm	150 mm	150 mm
<b>Viewing optics</b>	Leica binocular with eyepiece for spectacle wearers				
<b>Power supply</b>					
Dimensions (L x W x H)	820x400x910mm	820x400x910mm	820x400x910mm	820x400x910mm	1026x700x938mm
Weight	approx. 98 kg	approx. 98 kg	approx. 98 kg	approx 98 kg	approx. 130 kg
<b>Laser beam source</b>					
with focussing unit (length x Ø)	900 x Ø120 mm	900 x Ø120 mm	900 x Ø120 mm	1100 x Ø120 mm	1100 x Ø120 mm
Weight	ca. 18 kg	ca. 18 kg	ca. 18 kg	ca. 20 kg	ca. 20 kg
<b>Electrical supply</b>					
	200-240 V / 50-60 Hz / 16 A		3 x 400V / 3 x 16A / 50- 60 Hz / N,PE		
<b>Cooling</b>					
	air cooled with internal cooling water circuit, no additional external cooling necessary				air cooled with internal cooling water circuit, additional cooling if needed
<b>Options</b>					
	<ul style="list-style-type: none"> <li>&gt; Micro-welding</li> <li>&gt; Turn-and-tilt optics</li> <li>&gt; Rotary welding optics: special device for circular weld seams</li> <li>&gt; TV system for demonstrating and observing the welding process</li> <li>&gt; Tilttable turntable with chuck for horizontal to vertical rotation</li> <li>&gt; Focussing lenses with various focal lengths</li> </ul>				