



Photo: DSI Laserservice GmbH, Maulbronn

## ALFlak

With our flexible laser for deposit and contour welding – *ALFlak* – we offer you even more possibilities for mobile laser repair welding.

Scope of motion and reach have been considerably extended, so that even welding spots in deep, complex moulds can be reached without problems, using the long laser arm. Welding seams of up to 500 mm length can be performed without a break. The *ALFlak* is available with a self-driving caterpillar track or as a manually transportable model. A unique comfort is provided by our patented, semi-automatic user-coordinate-control via WINLaserNC Software.



Technical data	ALFlak 200	ALFlak 300
<b>Laser</b>		
Average power	200 W	300 W
Peak pulse power	9 kW	9 kW
Pulse energy	90 J	90 J
Pulse frequency	Single pulse –100 Hz (in automatic mode and under observation)	
Pulse duration	0,5 ms – 20 ms	
Welding spot diameter	0,2 – 2,0 mm	
Focusing optics	150 mm	
Pulse shaping	Adjustable power-shaping within a laser pulse	
Control	User-specific operation with up to 39 data records	
<b>Viewing system</b>	Leica binoculars with oculars suitable for wearers of glasses	
<b>Working range</b>		
X, Y, Z in mm	1500 x 1000 x 1000	
Scope of Motion (X, Y, Z) in mm	340 x 320 x 420	
Lowest working point in mm	200	
Highest working point in mm	1500	
Arm travel in mm	1500	
<b>Mechanical dimensions</b>		
LxWxH of base unit in mm	approx. 1200 x 1200 x 1100	
Weight	with caterpillar track 850 kg – without caterpillar track 550 kg	
<b>Electrical connection</b>	3 x 400 V / 50–60 Hz / 3 x 16 A	
<b>Options</b>	<ul style="list-style-type: none"> <li>&gt; Micro-welding aperture for welding spot-Ø &lt; 100µm</li> <li>&gt; Turn-and-tilt-optics</li> <li>&gt; Tilttable turntable with chuck for horizontal to vertical rotation</li> <li>&gt; TV system for demonstrating and observing the welding process</li> <li>&gt; LAfet® – programmable laser-filler-wire-feeder</li> </ul>	



Repair welding on roller (Photo: tcms, Gummersbach)



Loading the ALFlak (Photo: tcms, Gummersbach)