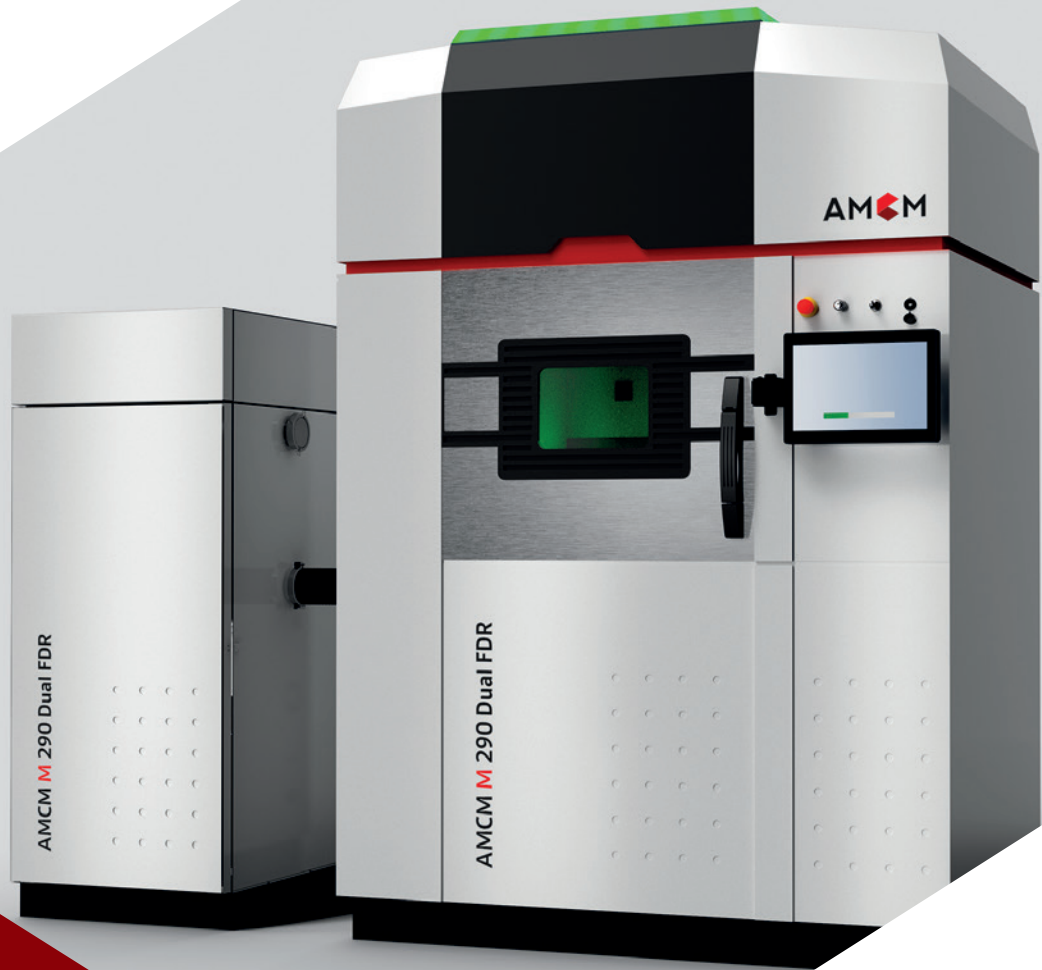




Additive Manufacturing  
Customized Machines



# AMCM M 290 Dual FDR

Dual head, fine detail resolution AM system.

**Optimized for your applications.**

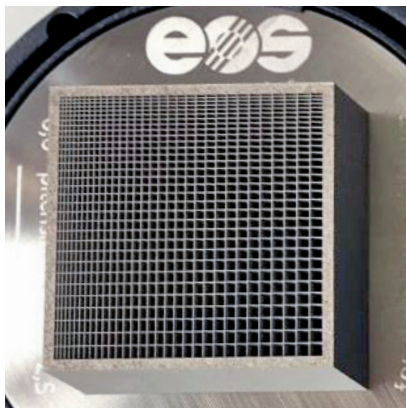
# AMCM M 290 Dual FDR

## BENEFITS

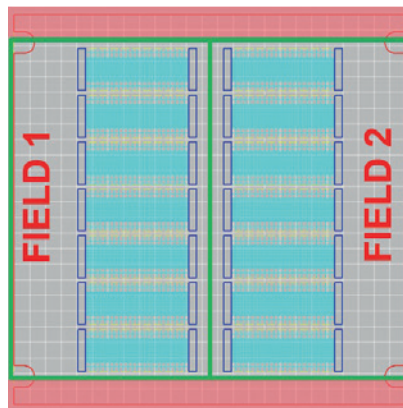
- Fine detail resolution (FDR) for demanding applications
- High productivity with dual laser setup
- Option for parameter set transfer from M 280 FDR or M 100 ASG (same focus, beam quality, etc.)<sup>(1)</sup>
- Process gas cooling for constant process conditions (optional)
- Open software for process optimization

## TECHNICAL DATA

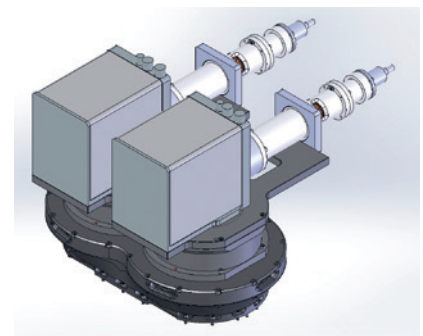
<b>Building volume</b>	250 x 220 x 325 mm   9.85 x 8.66 x 12.8 in <sup>(2)</sup>
<b>Laser type</b>	Yb Fiber laser 2x 400 W nominal power
<b>Wave length</b>	1070 nm
<b>Precision optics</b>	F-theta-lens
<b>Scanner</b>	digital scanner with active cooling
<b>Scanning speed</b>	up to 7,0 m/s   23 ft./sec
<b>Focus diameter</b>	approx. 40 µm   0.0016 in
<b>Process gas cooling</b>	additional gas cooling unit (optional)
<b>Power supply</b>	ca. 32 A / 400 V
<b>Power consumption</b>	max. 20 kW
<b>Inert gas supply</b>	7.000 hPa; 20 m³/h   102 psi; 706 ft³/h
<b>Dimensions (W x D x H)</b>	2.500 x 1.300 x 2.400 mm   98.4 x 51.2 x 94.49 in
<b>Recommended installation space</b>	min. 4.800 x 3.600 x 3.500 mm   189 x 142 x 138 in
<b>Weight</b>	approx. 1.350 kg   2,976 lb



**Fig 1:** Example of an anti-scatter grid (ASG)<sup>(4)</sup> produced on a EOS M 100 ASG with similar optics as on M 290 Dual FDR.



**Fig 2:** Exposure area of scan field 1 and scan field 2<sup>(3)</sup>



**Fig 3:** M 290 Dual FDR scanner setup

<sup>(1)</sup> Processes must all be re-qualified by customer.

Consulting for parameter set transfer from M 280 FDR or M 100 to M 290 Dual FDR on request.

<sup>(2)</sup> Effective exposure area per scanner is XY 135 x 220 mm. Parts inside overlap area of the two scan fields should be built with a single laser. Recommended maximal part size XY 125 x 220 mm.

<sup>(3)</sup> Overlap calibration and scan field adjustment for M 290 Dual FDR not available.

<sup>(4)</sup> Recommended max. building height for ASG application with Tungsten Z = 100 mm due to high weight.