AMCM

Additive Manufacturing
Customized Machines

AMCM M 450

25 % more building volume
compared to EOS M 400.

Expand your applications.

AMCM M 450

Benefits

- Compatible with legacy EOS M 400 process parameter sets (same focus, beam quality, etc.) [1]
- Larger building envelope of 450 x 450 x 400 mm [2]
- As new system: new optical setup for AMCM M 450-4 covering full 450 x 450 mm area
- Calibration and overlap adjustment with SmartCAL
- Optimized gas flow nozzle for larger build volume
- Consumables and options available for M 450 (building plates, recoater blades or soft recoater, etc.)
- Open software for process optimization
- Automatic refill of dispenser with open loop powder handling
- 1.2 kW AFX nLIGHT laser with beam shaping can be integrated (AMCM M 450-4 FLX)

Technical Data

	AMCM M 450-4	AMCM M 450-4 1kW	AMCM M 450-4 FLX
Building volume	450 x 450 x 360 mm [3] | 17.72 x 17.72 x 14.17 in [4]		
Laser type	Yb Fiber laser		
Nominal power	4 x 400 W	4 x 1 kW	4 x 1.2 kW
Wave length	1,070 nm		
Precision optics	F-theta-lens		
Scanner	high-speed scanner with active cooling		
Scanning speed	up to 7.0 m/s | 23 ft./sec		
Focus diameter	approx. 85 µm | 0.003 in		85 - 210 µm | 0.003 - 0.008 in
Process gas cooling	no		gas cooling unit
Power supply	63 A / 400 V		
Power consumption	23 kW	30 kW	35 kW
Inert gas supply	7,000 hPa; 20 m^3/h | 102 psi; 706 ft^3/h		
Dimensions (W x D x H)	4,880 x 2,440 x 3,308 mm | 192.1 x 96.1 x 130.2 in		
Recommended installation space	min. 6,500 x 6,000 x 4,173 mm 256 x 236 x 164 in		
Weight	approx. 5,980 kg | 13,184 lb	approx. 6,170 kg | 13,603 lb	approx. 6,300 kg | 13,889 lb

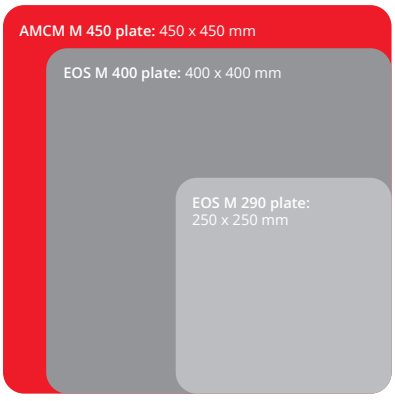

Fig 1: Building size ratio of EOS M 290, EOS M 400 and AMCM M 450.

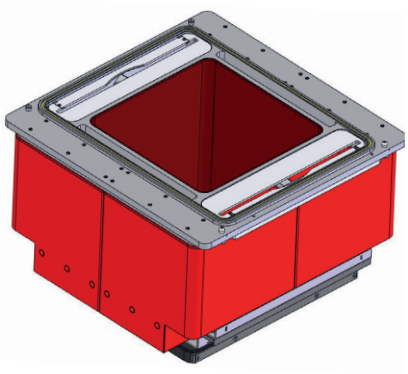

Fig 2: AMCM M 450 exchangeable frame design with extended overflow bin volume of 92 l.

[1] Processes must all be re-qualified by customer.
Consulting for parameter set transfer, e.g. from EOS M 400-4 to AMCM M 450-4 on request.
[2] Building height incl. build plate.
[3] 400 mm without heating.
[4] 15.75 in without heating.

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AMCM is certified according to ISO 9001.

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