

### **Expanding our Additive Manufacturing Units**

Metal Technology Co. Ltd. (MTC) (Headquarters: Nakano-Ku, Tokyo, President: Kazuhiko Hasegawa) is proud to announce it has introduced a new laser additive manufacturing unit the ProX DMP 320, made by 3D Systems of the USA, to MTC's Technical Center in our Kanagawa Plant, at Ebina City, Kawagawa-Ken. The new unit, which officially started operating on August 1st has a work zone of around 1.4 times bigger compared to MTC's existing laser additive manufacturing units. A maximum modeling area of 273mm × 273mm × 390mm when using a 30mm thick build plate. This will enable MTC to manufacture large products or produce multiple parts at the same time leading to cost reductions and enhanced savings for the environment as well as further flexibility in design too.

MTC has been running three AM units since 2013. The EOS INT M280 which was introduced in December 2013, The Arcam A2X, an electron beam AM Unit introduced in April 2013, and the Q20 plus which was introduced in December 2014. The addition of this fourth AM unit means MTC now has two laser type AM units and two electron beam type units increasing MTC's knowledge and understanding of this technology. With an integrated production system covering several other connected processes and inspections based on JIS Q 9100, MTC is able to address and support various customer needs through both part configuration based on heat source difference, or through optimum design configuration choices.

MTC's 2016 approval of JIS Q 9100, a management system standard specialized for aerospace and the defense industry, also enhances MTC's quality control system and by combining this with our vast experience in other manufacturing technologies like HIP, sintering, and heat treatment etc. as well as our ability to perform inspection of the products (X-ray CT, contact/non-contact 3D measurement, powder analyzation) results in MTC being able to offer an established and reliable system. A system that is able to respond to a whole variety of specifications, high demands, and challenges which might be required for products and parts in demanding industries. MTC is able to offer answers to customer's needs, manufacturing high value added parts for the aerospace, medical, advanced technology Industries.

**MTC's AM Units:**

Manufacturer	Type	Working zone	Material
ProX DMP 320 (3D System)	Laser Powder bed system	273W × 273L × 390Hmm	Ti alloy Inconel (Ni alloy)
EOSINT M280 (EOS)	Laser Powder bed system	250W × 250L × 325Hmm	Ti alloy Inconel (Ni alloy)
Q20 plus (Arcam)	Electron Beam Powder bed system	∅ 350 × 380Hmm	Ti alloy
A2X (Arcam)	Electron Beam Powder bed system	200W × 200L × 350Hmm (TiAl: 150W × 150L × 300Hmm) (SUS: 170W × 170L × 300Hmm)	Ti alloy Stainless Steel TiAl alloy