



13535 Danielson Street
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Phone: (858) 486-9050
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Company Background	CNC Milling	CNC Turning	EDM Capabilities	Waterjet Capability	Toolroom Capability	Equipment Listing	Contact AMT
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CASE STUDIES



World Renown Turbine
Manufacturer

Electrical Discharge Machining (EDM), Wire EDM, Small Hole EDM, Ram EDM, CNC Machining, CNC Turning, Full Tool Room and Waterjet Machining

AMT specializes in creating unique or difficult to fabricate components by coupling the efficiency of CNC Machining, Turning and Waterjet Machining with the inherent high precision of CNC Wire & Ram EDM (Electrical Discharge Machining). With over 20 years in business, we have manufactured production quantities of fabricated assemblies and complex precision parts for all industries. Tolerances of +/- .0001" (.0025 mm) are achieved by many of our skilled associates operating in our climate-controlled 31,500 sq. ft. facility. We have fabricated many precision, complex machined parts that other facilities have claimed "can't be made!". AMT is [certified to ISO 9001 and AS 9100](#) and a small business. AMT is ITAR (International Traffic in Arms Regulations) registered with the United States Department of Commerce and is approved to review ITAR classified drawings and documents. AMT is listed in the CCR (Central Contractor Registration) database which provides AMT specific company information and allows other organizations to efficiently do business. Our talented staff regularly take on challenges to apply our innovation and automation concepts to fabricate highly accurate, precision components from round bar, flat, square & sheet stock, castings and forgings.



[View Photo Gallery >](#)

Materials we process include:

-2024 aluminum	-copper tungsten	-maraging 350	-302 stainless steel	-tantalum
-5052 aluminum	-delrin	-molybdenum	-303 stainless steel	-tellurium copper
-6061 aluminum	-GP02 Glastic	-nickel 200	-304 stainless steel	-tin
-7050 aluminum	-Inconel 600 ESR	-nickel 201	-316 stainless steel	-titanium 6Al-4V
-7075 aluminum	-Inconel 625	-niobium	-347 stainless steel	-titanium CP2
-aluminum bronze	-Inconel 718	-Nitinol	-410 stainless steel	-tool steels: H13, S7, P20, D2, O1, A2, M2
-beryllium copper	-Invar 32 (Super Invar)	-nylon 6/6	-440C H.T stainless steel	-tungsten
-beryllium nickel	-Invar 36	-phenolic	-1018 steel	-Utem 1000
-brass	-Invar 49	-rhenium	-4140 steel	-Utem 2400
-bronze	-Hastelloy	-silicon	-4340 steel	-Waspalloy
-carbide	-Kovar	-13-8 PH stainless steel	-9310 steel	-zircon
-copper	-Lexan	-15-5 PH stainless steel	-A36 steel	
-copper moly	-magnesium	-17-4 PH stainless steel		

We will work together with you, our valued customer, to create successful results utilizing our specialized equipment, persistence and innovation to achieve the desired precision components. Let AMT's staff apply their collective consciousness approach and years of knowledge to analyze the manufacturing process to efficiently produce production quantities of critical, precision parts that meet or exceed your expectations.

To download our website for offline viewing & printing, [click here](#).



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Company Background

Advanced Machining & Tooling, LLC (AMT), a California corporation, commenced doing business in 1989. We started our business in a small 168 sq. ft room and over the decades we've expanded into a 31,500 sq. ft. facility of fully climate-controlled space. We are located in the city of Poway, neighbor to San Diego in the inland valley, five miles east of the I-15 freeway. Our employment has increased to over 45 full and part time Toolmakers, Machinists, EDM Specialists and administrative personnel.

It is our experience that, AMT produced precision parts allow a competitive advantage to our customers due to the increased machined precision, many parts are interchangeable and improved inherent quality and accuracy of CNC & EDM produced components. Being ISO 9001 & AS 9100 approved assures you the highest quality and consistent work. We are committed to our customers to help define and resolve technical & manufacturing issues with cost-effective solutions.



Mission

It is the mission of Advanced Machining & Tooling, LLC (AMT) to provide exceptional service and quality Precision EDM, Waterjet & CNC manufactured parts, products and assemblies that consistently meet or exceed our customers ' expectations through continuous improvements.

Product/Services Capabilities

AMT's focus is the manufacture of high precision, complex parts. Our competitive advantage is the utilization of Electrical Discharge Machining (EDM) and Waterjet equipment coupled with state of the art CNC machining and turning equipment to produce the majority of our precision components. Our Waterjet provides precision components at lower cost than standard techniques. The EDM process results in repeatable components at extreme high precision. Our combination of technologies allows a unique, innovative or automated approach to be utilized for the machining of complex shapes or difficult materials. Superior results are consistently obtained and the interchangeability of components is achieved.

Quality/Business Systems

AMT has achieved approved supplied status by maintaining an efficient quality control and business system that is [certified to ISO 9001 and AS 9100](#). Our calibration system far exceeds the obsolete Mil-STD 45208A. All of our final inspection instruments are traceable to NIST. Our processes and manufacturing are accomplished in strict accord to our ISO/AS documented systems. The business systems are continuously improved, being upgraded and consistently improved. We are training our talented associates on a regular basis to maintain the state of the art in manufacturing techniques and systems.





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CASE STUDIES

CNC Capabilities – Milling

With our new Okuma 5 Axis milling machine and our three Mori Seiki Machining Centers, precision machined parts can be machined to tolerances of +/- .0001" on our calibrated, extremely precise machines. Our newest Okuma is equipped with a 48 station tool changer and performs fully integrated five axis machining simultaneously. All of our machines are capable of machining very tough materials very efficiently. Complicated four and five axis machining is accomplished by our skilled cadre of personnel. All of our equipment is operated in a temperature controlled environment to assure higher precision. Our new Okuma are in addition to three Mori Seiki's and three Kiras that we continue to operate bringing our total capacity to seven VMC's.



At AMT, we marry the cost effective traditional CNC machining & waterjet operations with the EDM process approach to save time or material. This allows critical final part shapes to be fabricated by EDM or waterjet after heat treatment and results in a superior product with less internal stress.

Current capabilities:

- Maximum Cutting Area: 40" x 20" x 20" tall
- Maximum Weight: 3500 lbs.
- 5-Axis Simultaneous Machining
- 4-Axis Simultaneous Machining
- 4-Axis Indexed machining

Complex shapes and configurations are created on our Mastercam system and CNC machined efficiently. We can accept .igs, .stp, parasolid and Solidwork files for direct input into our system.

At AMT, our focus is high quality parts that exceed your expectations. We are service oriented and will work with you to find the most cost effective approach to manufacturing your parts.

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CNC Capabilities – Turning

Our newest CNC Lathes are both Okumas. The Captain L470 1250C adds a new dimension in cutting size for us at ATM. Utilizing our 15" chuck or on a face plate, we can turn a 26" diameter titanium part. The 30 HP motor and extended travel, can support a 50" long part. Our Okuma LT10 features state- of-the-art dual spindles, dual turret design and incorporates a magazine bar feed. This machine allows a complete part piece to be manufactured in one cycle. This eliminates handling and saves the handling and reloading time - saving you money!

Additional capacity is provided by our other three Okuma CNC Lathes and our Miyano twin spindle lathe, utilizing live tooling. Very tight tolerance parts are manufactured in production quantities. We regularly turn Inconel, titanium, stainless steel and exotic materials on these precision machines.

- Maximum diameter: 34"
- Maximum length: 50"



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EDM Capabilities

We have an operational base of 14 various state of the art EDM machines. Our latest Mitsubishi technology machine produces the finest finish at the least amount of time and at the least expensive cost. We evaluate each of our manufacturing requirements to determine the appropriate method of manufacturing. In many instances, traditional CNC Machining or turning will not result in the required precision mandated on the blueprint. When this occurs, we have the option to use the more precise EDM approach to comply to print requirements. When a heat treated part requires a precise hole on location, we usually opt for EDM. When the deburring process will take as long as the original operations, we use the burr free EDM approach or the Waterjet approach and save time and money!

Keep in mind that in addition to being able to EDM cut conductive materials as hard as 70 Rc, tapered shapes are also possible. Complex precision components can easily be cut to unique shapes with high precision at a reasonable price. We work with a collective consciousness to find techniques to manufacture parts that customers felt were impossible. The EDM technology opens new doors of opportunity for engineers, scientists and designers. Precision EDM components have been conceptualized, fabricated, and delivered into Space many times as well as to Mars.



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CNC Waterjet Machining Capabilities

Our CNC Waterjet machine is the Omax 2626XP. Omax is the leading producer of waterjet machines delivered worldwide. The Omax 2626XP is the highest technology and most accurate waterjet machine ever produced. Greater accuracy is achieved through an enhanced thermal system and a premium linear positioning system. Precise, straight edge cutting is achieved through the patented Tilt-a-Jet option that eliminates the nasty taper angle created by all other waterjet machines. The straight cut edges allow many new fabrication options for cost effectively producing machined components. We regularly waterjet Inconel, Kovar, titanium, stainless steel and exotic materials on this precision machine. Components as large as 40" x 29" x 8" thick can be machined with precision.



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CASE STUDIES

Toolroom

Our toolroom features high quality machines manned by very knowledgeable toolroom machinists and toolmakers. We have full toolroom capabilities including milling, turning and grinding.

At AMT, we study the various methods to manufacture a precision component and then create the tools, procedures and fixtures from the collective wisdom of our forty- five employees. Unique and specialized fixtures are built with critical final part shapes fabricated by EDM after heat treatment. Our tools are first class and allow us to maintain very close tolerances while machining.

Current capabilities:

- Full Toolroom Equipment & Skilled Personnel
- Milling, Grinding, Turning, Boring
- Jigs, Fixtures, Tools & Dies Made to Exacting Tolerances and Assembled Complete.

We will work with you to create the solution to your manufacturing or machined part challenge. Our in-house skilled personnel include: Toolmakers, Engineers, CNC Machinists, EDM Specialists, Master Machinists, and CAD Programmers. Our AMT Designed tools will provide turn-key requirements solutions without relying on outside organizations.

At AMT, our focus is high quality parts that exceed our customers' expectations. We are service oriented and will work with you to find the most cost effective approach to manufacturing your parts.



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Equipment Listing

CNC Equipment

- CNC Wire EDM Machines - Mitsubishi
- RAM/Cavity EDM Machines - Mitsubishi
- CNC Small Hole EDM Equipment - Current EDM
- CNC Machining Equipment – Okuma, Mori Seiki & Kira
- CNC Turning Equipment – Okuma, Miyano
- Waterjet Equipment - Omax

Conventional Equipment

- Conventional Grinding Equipment
- Conventional Turning Equipment
- Conventional Milling Equipment
- Conventional Jig Bore Equipment
- Computer Equipment
- Inspection/ Quality Assurance Equipment - ISO 9001 Certified – Mitutoyo, Brown & Sharp



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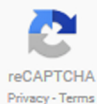
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Contact

☐ I'm not a robot

We work together with our customers to help define and resolve technical & manufacturing issues. Contact us for further information on how we can help you meet your needs. Or fax or email us your drawing for quotations. We are here to help you.

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