

Who Is Atlas Pressed Metals?



Atlas Pressed Metals, established in 1976, is a family-owned business and a leading powder metal components manufacturer located in DuBois, Pennsylvania.

We strive to provide customers with high quality solutions and dedicated service, acting as our customers' own "in-house powder metal department."

Powder Metal (PM) regularly replaces alternative metal forming operations such as machining, casting, and stamping as the preferred method to manufacture quality metal components. Our specialization in the PM process means that we can provide the services necessary to support customers who have long utilized PM, as well as those looking for new and improved solutions to persistent problems.

Above all, Atlas strives to be a trusted partner in the development of precision parts. We provide a continued commitment to your success.

Loyalty goes both ways with Atlas. Our powder metal parts are produced to the highest industry standards, allowing Atlas to be a trusted partner in business operations.

We employ a team of engineering and metallurgical professionals that understand the intricacies of the process and the material. Our team provides service on the front end in the form of product development, design assistance, and material selection.

At Atlas, our goal is to be the best partner we can be for your company, and not just another parts supplier. We want you to feel as comfortable calling us as you are calling the office next door.



Our parts are
100% USA made.

What Is Powder Metal?



Creating parts from metal powder is an economical production process, but how exactly does it work?

The process begins with a powdered form of metal, mixed together with other alloying elements. Some common material blends include:

- Iron
- Carbon
- Copper
- Molybdenum
- Manganese
- Nickel

Based on the needs of the customer, a mix is created for optimal material properties. Whether you're looking for durability, strength, hardness, or wear resistance, there is a material blend that will fit the application.

When the material blend has been selected, it is fed into a die and compacted into a net shape or near net shape part.

The compacted metal parts are heated in a sintering furnace that allows the particles to alloy and bond together.

The material is brought to a temperature below its melting point, so that the part maintains its shape and size while forming the alloys that create the final material characteristics.

The powder metal process excels at creating complex geometries, all while maintaining a high level of dimensional control.



PM is a green technology. It's energy-efficient, utilizes recycled material, and produces less pollution than other metal forming methods. PM's net-shape forming ability results in less than 5% waste, far lower than traditional metal forming methods, and frequently eliminates the need for secondary processing.



AUTOMOTIVE



APPLIANCES



LAWN & GARDEN



MEDICAL DEVICES



OFF ROAD



HAND & POWER TOOLS



MOTORS



INDUSTRIAL

Why Choose Powder Metal?

Powder metal allows for a high degree of design freedom.

Our multi-disciplined engineers can help you create complex designs that would be difficult or impossible to produce using other manufacturing methods. We can often convert multiple components into a single powder metal part that requires little, if any, secondary processing, eliminating production costs and assembly expense.

With our extensive knowledge of metallurgy, we can recommend the right material and process to deliver the desired properties for your application.

By taking the time upfront to understand your goals, requirements, and concerns, we can engineer a part and a process with a high degree of precision. Contact us today to learn more about our powder metal engineering and design capabilities.

Where Is PM Used?

Powder metal can be used in virtually any manufacturing sector.

Blending, compacting, and sintering materials can provide net shape or near net shape components. With PM you can unlock possibilities you won't find in traditional casting, forging, or machining operations.

PM is recognized as a Green Technology. Many aspects of the PM process are more environmentally friendly than other manufacturing processes. Due to its energy-efficient approach, as well as the capability to use powders from recycled materials, our process creates less pollutants than traditional metal fabrication methods. Our ability to produce net shape or near net shape parts allows us to eliminate excess scrap, yielding less than 5% waste (far less than traditional methods).



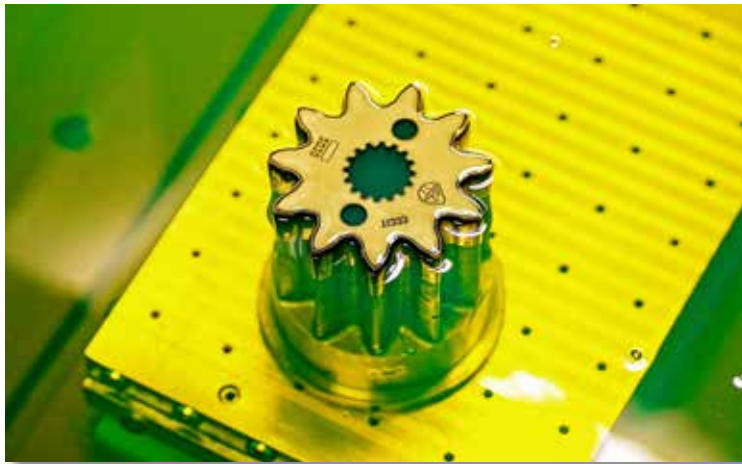
Why Choose Atlas Pressed Metals?

At Atlas Pressed Metals, we believe that in order to best fill our customers' needs, we must first understand their goals, requirements, and concerns. That's why we do our best to establish a personal point of contact with each and every one. We're always ready and willing to discuss projects, proposals, or problems. From there, we can develop a plan for designing and implementing powder metal solutions.

When you partner with Atlas, you become a part of the family.

At Atlas we provide solutions, even if the correct solution isn't PM. If we've determined that what we can offer isn't the best fit for your business, we'll help you to understand why and we'll work with you to find an answer. Atlas' capabilities go beyond the replacement of existing PM components. We focus on optimizing your process and implementing solutions.

After 40 years of delivering consistent quality parts, our team has developed an expertise for process assessment and improvement. Atlas is committed to growing with our customers, to better understand and meet their needs as they develop.

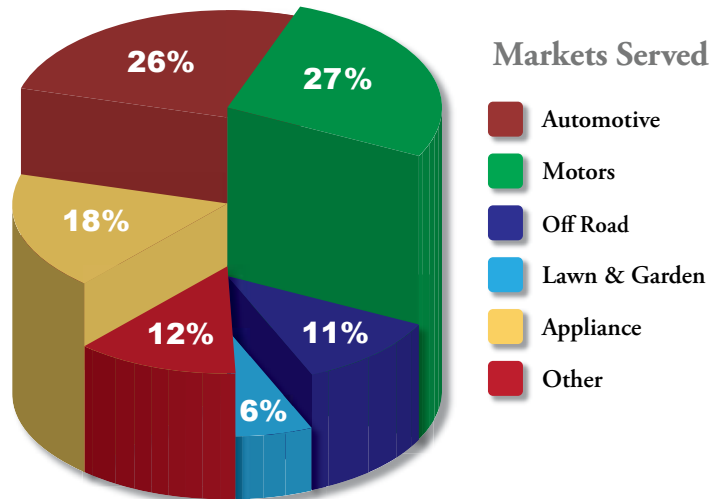


“ Atlas Pressed Metals is a professional organization with great knowledge, experience, and expertise in the PM industry. They have a clean, well-run, world-class facility, operated by a very talented and experienced staff. It is a pleasure to work with them. ”

Vice President of Engineering
Global Supplier of Industrial Equipment



Atlas By The Numbers



Atlas Pressed Metals Capabilities include, but not limited to:

Weight:
Up to 6800 grams (15 lbs)

Diameter:
3 mm (0.125") to 250 mm (10")

Length:
3 mm (0.125") to 76 mm (3")

Press Sizes:
Ranging from 6 to 825 tons

Shapes:
Structural, spherical, flanged, single to multi-level

Gear Geometries:
Flanged, multi-level, helical, and grooved features

Experience the Atlas Difference

Custom Powder Metal Parts Engineering

We employ a team of engineering and metallurgical professionals that understand the intricacies of the powder metal process and materials.

Atlas Pressed Metals' team provides powdered metal engineering services on the front end in the form of product development, design assistance, and material selection. This is especially advantageous with multi-level designs with tight dimensional tolerances and complex geometries.

Capabilities include:

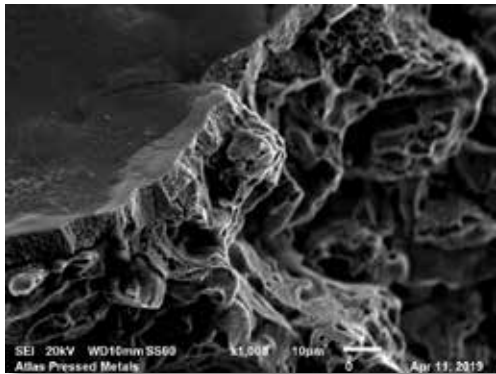
- AutoCad 2D and 3D Solid Modeling
- In-house Tool Design
- PM Strength Calculations & FEA Software
- Finite Element Analysis
- Conversions/Design Recommendations
- Automated Vision Inspection

Metallurgical Lab Testing & Analysis

With our own in-house, state-of-the-art powdered metallurgy lab, Atlas Pressed Metals offers advanced services to increase quality control and reduce turn-around time. Our Ph.D led staff can conduct specimen preparation for sectioning, mounting and polishing samples.

Services include:

- Failure Analysis
- Micro Hardness Indentation
- Scanning Electron Microscope Capabilities



Automation Engineering

Our in-house Automation Engineering team is involved with every new program from the beginning. They design, fabricate and install a variety of automation tools to ensure product quality as well as manufacturing efficiency.

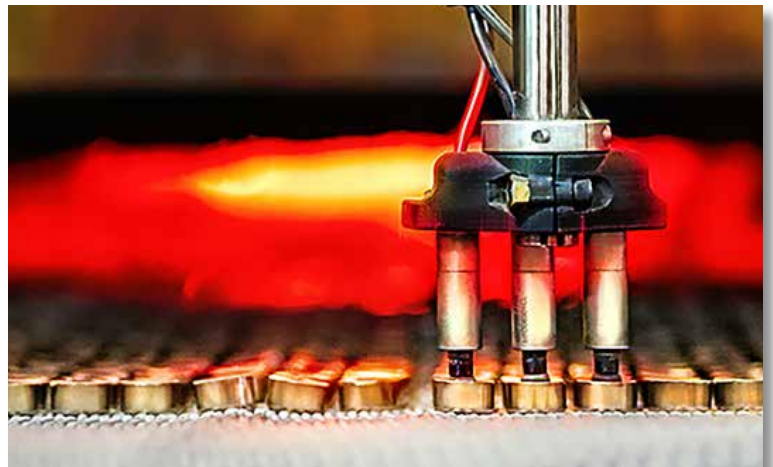


Powder Metal Parts Manufacturing

Atlas Pressed Metals utilizes a statistical process control system that monitors our entire manufacturing process, giving us real time feedback on our performance. In multi-level designs, with tight dimensional tolerances and complex geometries, the advantages of a dedicated powder metal partner cannot be overstated.

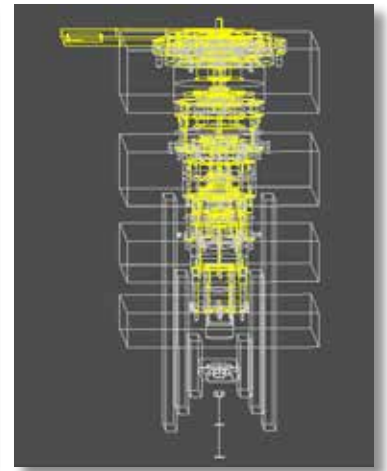
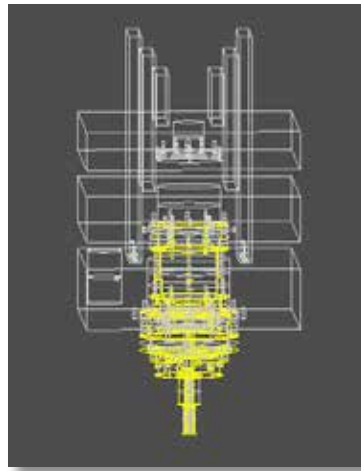
In addition to a wide range of powdered metal manufacturing systems, we also manage an array of finishing services; high precision machining, coating, plating, and heat-treating options are offered through qualified partner secondary suppliers.

Our ability to provide the complete package further enhances process flexibility by giving us complete control over production.



Providing Engineered Solutions

In order to best fill our customers' needs, we must first dedicate ourselves to understanding their goals and their process. Atlas has assisted countless customers in adopting PM solutions. Each of these projects resulted in positive savings – often times in both cost and quality improvements.



Not Too Heavy a Load

A redesigned appliance lid with an increased load required our customer to rethink their hinge assembly. Using a special material blend and precise process steps, Atlas was able to provide a heavy duty component that allowed the program to stay on track, saving both time and costs.

We Own the Porosity

Our customer was buying a machined component of expensive material, offering good wear and corrosion protection. Atlas proposed a two-piece assembly design combining custom porosity lubrication and protective plating, achieving significant cost and lead time reduction.

Intricate Core Features Needed

A small cylindrical housing with internal vein features and strict requirements for strength, cleanliness and production volume put Atlas' new product development team to the test. Careful tool design, sinter hardening, and proprietary lubrication provided for quick, feasible manufacturing.



“We believe that outstanding service is more than just a catchphrase – it is the most crucial aspect of our business.”



125 Tom Mix Dr. • P.O. Box P
DuBois, PA 15801 • USA

www.atlaspressemetals.com

(814) 371-4800



Quality Management System registered by
SRI Quality System Registrar to IATF 16949:2016
and ISO 9001:2015 – ANSI/ISO/ASQ Q9001-2015

