Tungsten Carbide Pioneers

Good Earth Tools, Inc. (GET) is a manufacturing company that specializes in wear-proofing industrial products. We are pioneers in the engineering and application of solid Tungsten Carbide.

We have developed and produced wear-resistant products for use in mining, agriculture, power generation, cement, construction, materials handling, mineral processing, oil and gas, size reduction, drilling, crushing, and other industrial applications. Our products are designed for long service life and difficult service applications where downtime and premature wear failures are not an option.
Good Earth Tools was founded in 1964 by Keith Williams as a Tungsten Carbide wear protection company. Starting in his tiny backyard shop in Desloge, MO, he built the company slowly but steadily. In 1982, GET moved to its current location in Crystal City, MO. Since that move, the company has continued to grow. Good Earth Tools now includes five buildings on 27 acres, including 130,000 square feet of offices and manufacturing facilities.

Around the world, Good Earth Tools is recognized as a leader in designing, engineering, and manufacturing Tungsten Carbide solutions for wear problems. Good Earth Tools continues to be a family run business, proudly manufacturing all our products in the USA.

“Good Earth Tools is a solutions provider. We have the knowledge and the capabilities to solve any wear problem.”

GET applies more than 10,000 pieces of Tungsten Carbide to a typical industrial coal fan.

GET builds a line of extruder wear parts

GET continues to grow and expand, providing excellent quality, service, and value to our customers.

GET revolutionizes industrial fan protection

GET builds extruder wear products reinforced with Tungsten Carbide technologies.

GET expands to 5 buildings on our 27 acre campus

+1.636.937.3330 • www.GoodEarthTools.com
The Good Earth Tools Difference

Good Earth Tools has the engineering knowledge and manufacturing facilities to solve any wear problem. Our engineers have years of product design experience, and our plant is capable of producing custom one-off products or long production runs.

We provide a variety of industrial wear-proofing technologies. Good Earth Tools offers StarCarb, TigerCarb, TuffCarb, and FlexCarb. Our full CNC machine shop and fabrication services allow us to offer turn-key solutions for wear-life problems.

The entire team at Good Earth Tools is determined to “partner with our customers to deliver the very best”! This is not just our mission statement, but the core focus of our business. From Engineering to Sales, Customer Service to Shipping, the GET team goes above and beyond to ensure that we provide top quality and long-lasting solutions for our customers. We know that every situation is unique, and we work hard to provide successful and cost-effective, custom solid Tungsten Carbide solutions.
What Is Tungsten Carbide?

Tungsten Carbide is a man-made metallic/ceramic material containing a mixture of tungsten, cobalt, and other alloying materials, including titanium and tantalum.

**Tungsten Carbide Attributes:**

- Exponentially outperforms steel in high abrasion applications, up to 30 times life expectancy
- Transverse rupture strength (TRS) exceeds 500,000 PSI
- Toughness and impact resistance makes Carbide great for grinding and crushing applications.
- Engineered in chemical-resistance as well as heat-resistance offer performance benefits in difficult situations.
- The natural lubricity (smoothness) of Carbide is an advantage in materials handling.

Good Earth Tools uses four varieties of Tungsten Carbide:

**STARCARB™**
Electronical Induction Brazed Solid Tungsten Carbide

- Silver brazed in place with a bond strength in excess of 25,000 PSI
- Extremely wear-resistant
- Up to a 30x increase in product life span over steel
- Material can be engineered to withstand high impact
- Performs well in corrosive environments
- Used in applications such as fan linings, skid shoes, and screens

**TUFFCARB™**
Solid Tungsten Carbide Granules infused in a hard-facing material

- Proprietary Good Earth Tools process injects Tungsten Carbide chips into a weld stream
- Boasts many of the wear characteristics of solid Tungsten Carbide plus exceptional impact resistance while being extremely cost-effective
- Large Tungsten Carbide particle size lends itself to applications involving heavy impact

**TIGERCARB™**
Plasma Applied Tungsten Carbide

- Proprietary Good Earth Tools process injects carbide powders into a plasma stream
- Used in applications where there is a combination of impact and abrasion, such as hammers, chippers, and equipment skids
- Impact-resistant nature lends itself well to applications involving hammers and high-speed particle streams

**FLEXCARB™**
Flexible Tungsten Carbide Mixture

- Proprietary Good Earth Tools Tungsten Carbide mixture
- Flexible substance conforms to the shape of the component
- Performs well in applications with impact, abrasion, erosion, and corrosion
- Can be used in high heat applications
- Extremely cost-effective wear solution

Whatever the application, whatever the wear issue, Good Earth Tools can create a solution.

+1.636.937.3330 • www.GoodEarthTools.com
Examples of Tungsten Carbide Applications

Good Earth Tools utilizes Tungsten Carbide in a variety of grades to handle both high impact and abrasion situations. By adding Good Earth Tools Carbide to parts that experience high wear, our customers experience less downtime, increased production, and consistent product quality.

**Counter Rotating Pulverizing Rotors**
GET engineers rotors for clay processors. Silver solder induction brazed Tungsten Carbide elements provide exceptionally long life and higher production rates. GET rotors are installed at multiple production facilities.

**Centrifuge Tiles**
GET brazed Carbide centrifuge tiles maintain a cutting edge three times longer than a standard tile.

**Material Transfer**
GET upgraded two 124" augers with a combination of Tungsten Carbide wear technologies to improve wear life. Each auger featured more than 8,000 pieces of solid Carbide. They performed so well that the company replaced all the screws at their facility with the GET improved versions.

**OEM Part-4 Months  GET-3+ Years**

**Centrifugal Suction Pump Plate Liner**
While the OEM part typically lasts about four months, the GET centrifugal suction pump plate liner generally runs for more than three years.

**Blades**
Our customer was replacing these original cast steel blades (left) every 750 hours. The GET Carbide protected blade (right) has experienced slightly more than 5,000 hours!
Fans
GET Tungsten Carbide-protected fans are much more abrasion-resistant and resilient to environmental conditions, typically providing multiple years of reliable maintenance-free service. Standard chrome clad-protected fans last about a year. Ceramic-protected fans are susceptible to impact and temperature.

Separators
GET solid Tungsten Carbide-protected separators exponentially outperform hardened steel versions. These parts are typically used in critical high production areas that are very expensive when not running. GET Carbide has proven to reduce downtime and help our customers' production rates soar.

Hammers
GET TigerCarb and solid Tungsten Carbide hammers maintain grind quality much longer than the original hammer. Our engineered Carbide wear materials and their placement are optimized for superior performance in the high-impact and abrasive environments of pulverizers.

“We experienced less downtime, increased throughput, and higher profits thanks to GET.”

+1.636.937.3330 • www.GoodEarthTools.com
For 50+ years, Good Earth Tools has solved the world’s toughest wear problems: mining, mixing, material handling, sizing, crushing, blending, and separating. Challenge us to improve your operations with innovative solid Tungsten Carbide wear technology.

Tough problems? Tough Solutions!
Good Earth Tools Works for You!