GMA GARNET™
UNMATCHED CUTTING PERFORMANCE
WATERJET ABRASIVES

Maximise production and safeguard your equipment.

We are GMA

For more than 35 years, GMA Garnet Group (GMA) has been the trusted producer for providing the highest quality industrial garnet abrasives to waterjet cutting industries globally. Most of our quality products come from our mines and processing plants in Australia and USA. We have also established garnet processing and recycling plants in the Middle East and Europe.

Guaranteed Supply

Having full control of our supply chain enable us to provide secure and stable supply of garnet to the global markets.

Why GMA Garnet™ is a Better Abrasive

GMA Garnet™ is unique

The qualities our customers recognise in GMA Garnet™ was first created from the formation of igneous and metamorphic rocks under intense heat and pressure over two billion years ago.

Over millions of years of weathering and erosion freed garnet from these rocks. The prolonged exposure of sedimentary forces results in tougher and more resilient sub-angular garnet grains without fractures or composites.

These natural garnet grains are further enhanced by advanced processing to produce GMA Garnet™ products that are renowned for their high purity and consistent sizing. These unique qualities deliver optimum productivity and excellent cutting performance.

GMA Garnet™

- Solid almandine garnet particles after prolonged natural attrition.
- Very resistant to further breakdown.

Indian Garnet

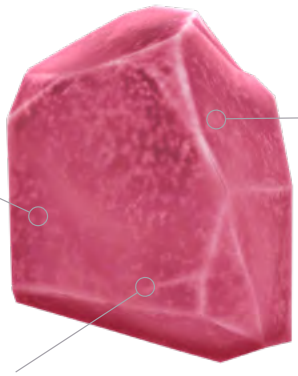
- Inherently weaker due to relatively short sedimentary life.
- Characterised by more fracture plains.

Chinese Garnet

- Poor abrasive characteristics due to a clustered crystal structure.
- Highly friable, breaks easily increasing dust levels.

Advantages of using GMA Garnet™

GMA Garnet™ is a uniquely strong natural mineral that effortlessly outperforms other abrasives. Due to its inherent strength in three critical abrasive characteristics, Hardness, Toughness (low friability) and Density, GMA Garnet™ performs powerfully and efficiently, resulting in high productivity and precision edge quality.



1 Hardness

GMA Garnet™, which is of Almandine variety, is the hardest form of garnet. It has a higher relative resistance for abrading on the workpiece during the cutting process.

2 Toughness

It is also one of the toughest garnet varieties. Therefore, it won't break down easily (less friable) while combining with the high pressure jet stream or cutting through material.

3 Density

High density and even particle size garnet grains create the ideal kinetic energy for achieving a consistent flow at every stage of the process.

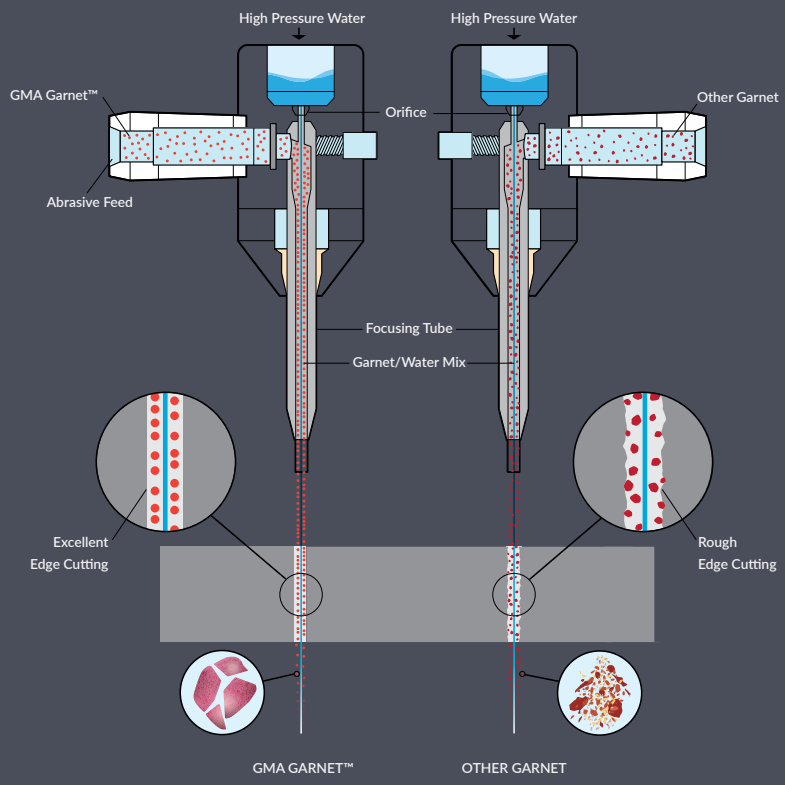
Peak performance, seamless operations in every shift

With GMA Garnet™, you can be confident to run your waterjet cutting machines at peak performance seamlessly. GMA Garnet™ delivers the highest productivity and the fastest cutting speed in the industry.

GMA Garnet™ consists of the highest quality alluvial garnet engineered to achieve optimum performance, accuracy and cutting speed.

Its particle shape, density, friability and hardness are ideal for maximising waterjet cutting production with the best possible edge quality.

Our world-class processing ensures that every batch of garnet contains highly accurate sized grains of the purest almandine garnet. This ensures that there is no dust or ineffective fine grains to restrict garnet free flow and no oversize grains to block focussing tubes, resulting in less downtime and lower frequency of expensive parts replacements.



- Superior Performance
- Higher Cut Quality
- Operational Efficiency
- Industry Standards

The industry standard in waterjet cutting abrasives

Metal Fabrication

Abrasive waterjet cutting is a vital process for metal fabricators' daily operations. Using GMA Garnet™ in this versatile process, you can cut almost any metal from aluminum and titanium to hardened steel over 25mm thickness with precision. As it is a cold cutting process, it does not generate heat affected zones that weakens or damages the material.

Aviation / Defense

Aerospace manufacturers rely on high-strength and lightweight materials to build commercial and military aircraft for better fuel efficiencies.

From exotic metals and titanium to carbon fibre composite materials for aerostructures and wing skins, jet engine components and turbine blades. Each component is produced with a superior cut edge finish with zero margin for error.

In addition, the absence of fibre pull out, delamination and heat affected zones reduces the risk of microscopic cracks or warping that could endanger lives. GMA Garnet™ is the trusted brand of garnet abrasive in the aviation industry for producing the highest cutting efficiency and edge quality.

Stone – Marble, Granite, Ceramics & Tiles

In the stone and marble industry, there is a perpetual demand for modern designs and motifs by architects and builders for decorating interior and exterior spaces.

Cutting intricate, irregular shapes out of natural and engineered stone with high precision and edge quality can be achieved by using advanced waterjet technologies.

Using GMA Garnet™, beautiful and complex designs are produced at high speed without chipping or breakage. The smooth finish requires minimal or no further processing and therefore saving significant time and cost.

Glass – Industrial Works, & Decoration

Across stained glass mosaics, intricate floors and tabletops inlays, and decorative ornaments, waterjet cutting using GMA Garnet™ range of finer abrasives enables you to work on the most delicate glass without cracking or creating a crater.

Finer abrasives provide an additional advantage for glass parts that may require polishing post cutting. The finer particles leave less striation on the cut edge, and therefore less polishing is required.

Automotive

In this automotive industry, abrasive waterjet cutting machines are easily integrated with the existing robotic systems on production lines and manufacturing processes. This also enables a single production line of different parts made of different materials from exterior components of metal and carbon fibre to interior parts such as head linings, carpeting and insulation.

GMA Garnet™ abrasives deliver the speed and precision in this fast paced production environment that demands very precise cuts on a tight schedule.

MicroCutting

Designed to produce micro-components, microcutting delivers ultra-high precision cutting to an accuracy of a hundredth of a millimetre! It is developed for cutting fine parts with narrow incisions without the need for extreme micro part tolerances.

Using special cutting heads and GMA Garnet™ fine abrasives, you can produce a variety of shapes from exotic metals, advanced composites, polymer thermoplastics, and glass with incisions as thin as 0.2 mm, and up to a maximum thickness of 5mm.

Other industries

Industrial Manufacturing

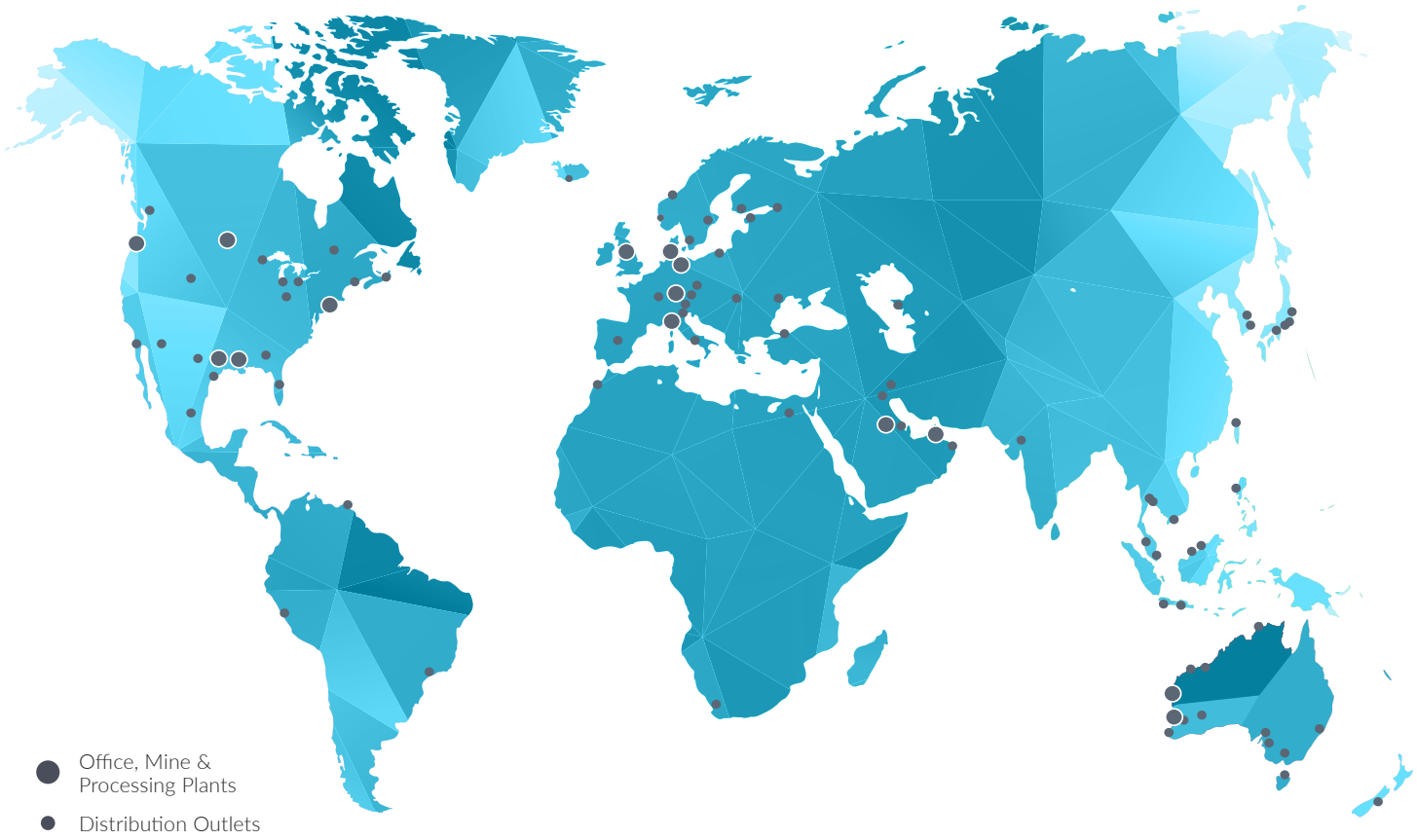
Medical Device Manufacturing

Petrochemical

Commercial Storage Tanks and Silos

Agricultural & Construction Machinery

Global Distribution Network



GMA Global Offices Asia Pacific: Perth | Americas: Houston | Europe: Hamburg | Middle East: Dubai, Jubail

Delivering beyond abrasives

GMA draws from our heritage, our innovative spirit, and our commitment to our people. Our customers trust us for our consistent quality and secure supply and we strive to provide deep expert advice that solves customer problems and enables them to do their jobs well. We understand our customers and develop our products to best meet their needs.

Secure Supply

Consistent Quality

Customer Focus

Technical Expertise

Recycling

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