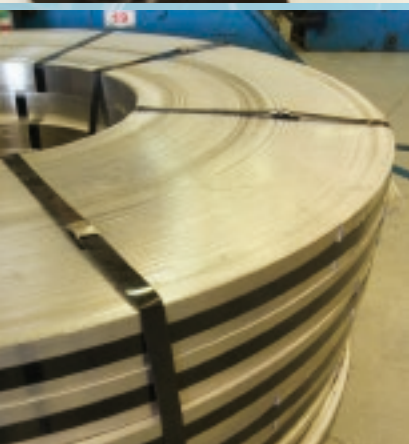
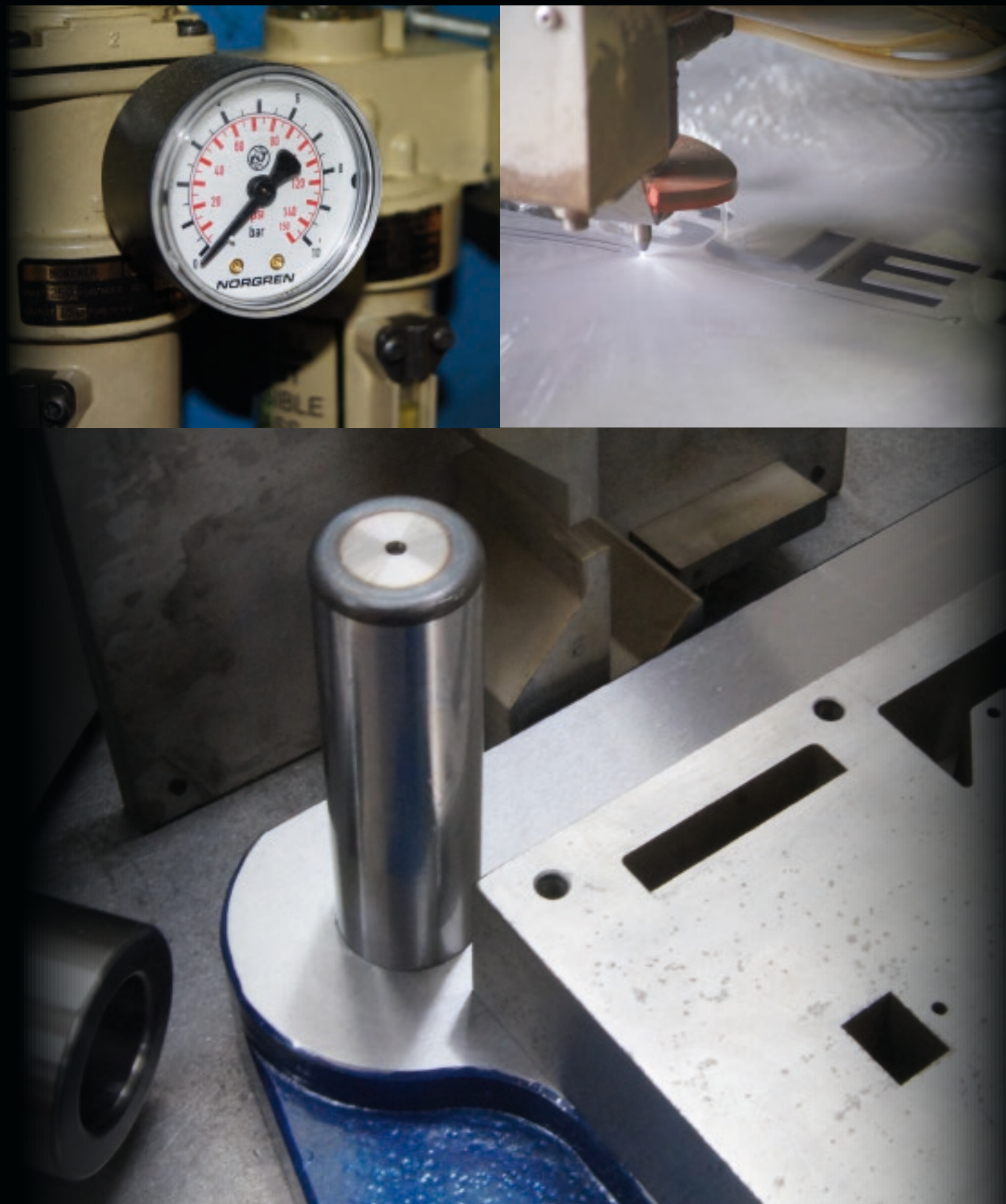


WASCA



ENGINEERING



WASCA
www.wasca.com.au www.wasjet.com.au

P: 03 9763 0833 F: 03 9763 2433 E: sales@wasca.com.au sales@wasjet.com.au



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“Over 50 years ago WASCA started producing the company’s first batch of stamped components from a small factory in Springvale, Victoria,”

Over this time we have grown and diversified our business and product range considerably to become the leading manufacturer and supplier of washers, stamped components, pressings, fasteners and custom designed solutions.



History of WASCA

Our comprehensive component manufacturing service offers a variety of processes to service your needs including metal stamping, metal pressing, punching, welding and forming, through to waterjet cutting, machining, tool making, threading, drilling & tapping, notching, profiling and assembly.

The idea and formula of WASCA began in the late 1950's through John "Jack" Coyne, who at the time was General Manager of Hecla appliances. While working for this company running

production and engineering, he formulated several fastener products which were patented and are still used in their original forms today.

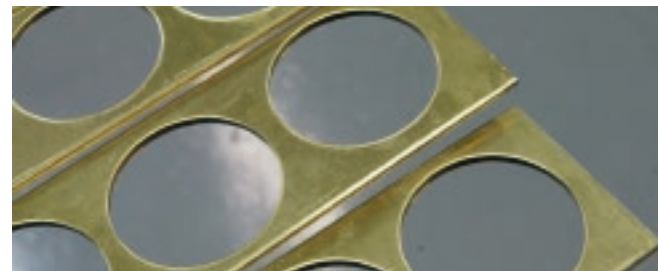
His knowledge was passed down to his 3 sons, whom he trained and assisted in starting WASCA from their small garage workshop in Malvern, Victoria. From there they built their own factory in Springvale and began production in 1962 formally registering the business Washers and Stamped Components Australia Pty Ltd in 1964.



Over the past few years, metal stamping has been replacing other metal forming processes such as forging and die casting because of the low production costs. Products can also be stronger and more durable than those made in other metal forming processes.

Metal stampings are used in a variety of industries because parts can be turned out at a very high rate reducing overall production times and costs.

WASCA's main manufacturing process and company roots lie in its Metal Stamping and Pressing Facility. We have over 30 Presses ranging from automatic coil fed to manually operated. Tonnage ranges from as little as 1 tonne which can produce 10,000 parts an hour up to 160 tonne being able to blank up to 12mm thick.



Our presses can produce single parts and also multiple parts using multi-stage tooling and complex forming procedures. We have the ability to adapt between high, medium and low volume production in a very small timeframe thanks to our extensive tooling range.



Experts in Metal Stamping & Washer Manufacturing

WASCA has been providing short & long run metal stamping services to clients from a broad range of industries for more than 50 years and is regarded as Australia's leading manufacturer of standard and non standard washers in all shapes, sizes and materials.



Single and Multi Stage production options.



Equipped for High, Medium and low volume production quantities.



Materials including Ferrous, Non-Ferrous and non-metallic.



Prototyping and Product development available as part of our service.

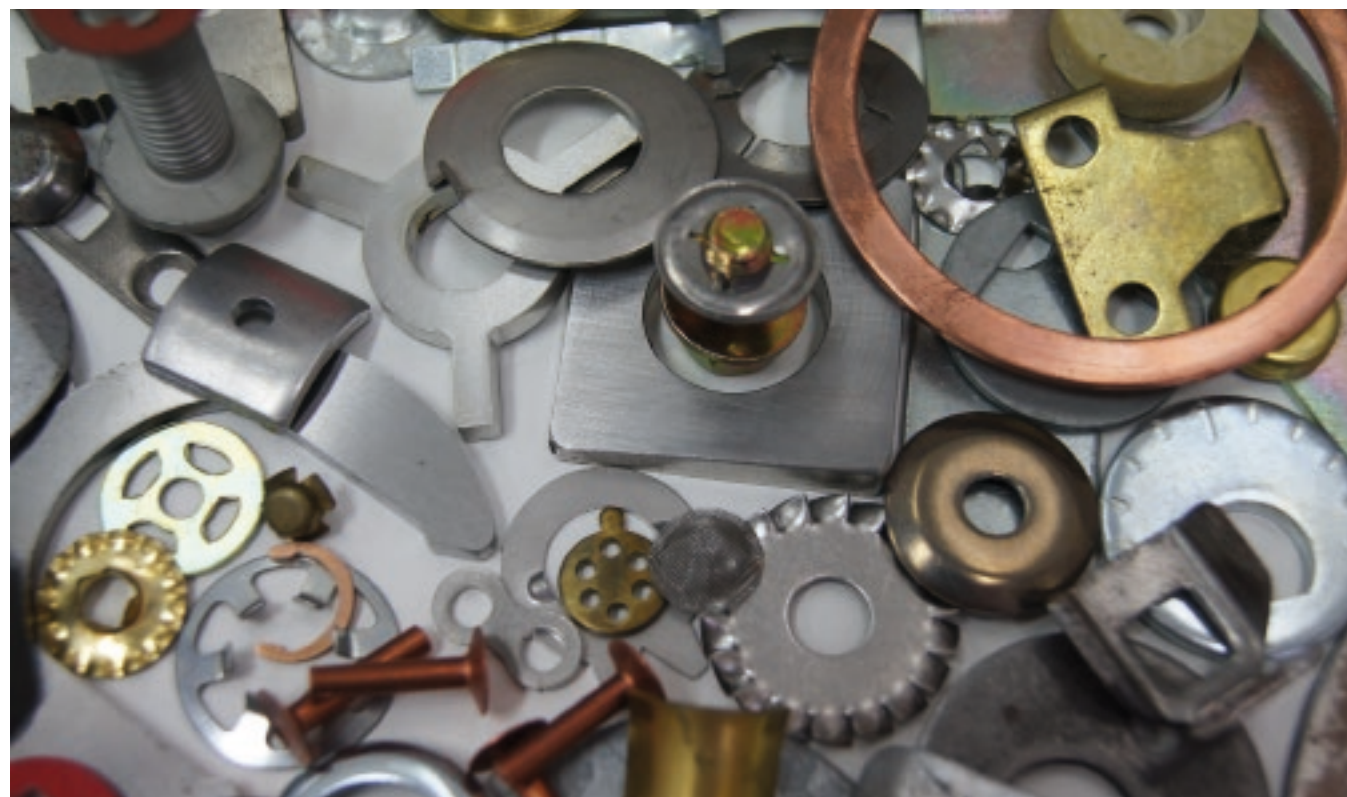
WASCA maintains over 12,000 stock tools for flat washers, spacers, and shims. You can choose from a wide variety of sizes, thicknesses and materials, including non-metallic. With outside diameters from 3mm to 100mm and a wide variety of inside diameters, you have millions of flat washer possibilities through the interchanging of our tooling.

Products falling outside this size range can be manufactured on our "WASJET" Water Jet Cutting machine. (See Page 7-8)

If your exact size is unavailable, the stock tools with parameters closest to your specifications are offered. If no tool is available within your specified tolerance range WASCA may be able to offer a custom metal stamping die manufactured in just a few days.

Beyond the stamping, punching, forming and de-burring operations we also will provide secondary certified processes such as Heat Treating, Penetrate Inspection, Painting, and Plating.

We take pride in our on time delivery service of high quality parts. Simply put, when you choose WASCA you do so with complete confidence.



From our humble beginnings 50 years ago, tool and die manufacturing has been one of the hallmark qualities of the Coyne brothers and WASCA.

manufacturing processes and solutions to compete with global pressures and lower cost base countries.

WASCA offers a complete in-house facility for tool design, tool construction and ongoing tool maintenance. From simple tooling, forming jigs and fixtures through to multi-stage high volume press tooling, WASCA takes pride in our ability to form the most complex shapes using our tooling systems.

We use a proprietary tool and die system that saves our customers as much as 80% of conventional tooling cost.

Certified "Life Time Tooling" - we cover all repair and maintenance cost as long as it remains in our shop and the revision remains the same. We are constantly developing new





Water Jet Cutting is completely environmentally friendly with no carbon emissions whatsoever and is the fastest growing and preferred material cutting process in the world.

The water jet cutting process provides many unique capabilities and advantages that can prove to reduce costs by tightly nesting parts to get the most out of material. By use of pressurized water up to 60,000 psi and 5 axis cutting head, the cold cutting process allows material to be stacked, cutting multiple parts in a single pass.

Whatever the shape, dimensions, or material, our computer software creates fast and efficient production with accurate and clean edges.



Some of the materials that can be cut:

- Ferrous Metals; Stainless Steel, Duplex Stainless, Mild Steel, BISPLATE and HARDOX, Spring Steel, Structural Steel
- Non-Ferrous Metals; Aluminium, Brass, Copper, Titanium.
- Stone, marble, ceramics & granite
- Glass & acrylic
- Nylon, Gaskets, Polypropylene, Polyethylene, Fibre
- Rubber



Benefits:

- No thermal distortion or hardening of the material
- Environmentally friendly with no bad omissions
- Net-shape cutting with no hand finishing
- Material stacking - cutting multiple parts in a single pass
- Omnidirectional cutting - even tight inside corners
- Accurate and high quality parts
- No tooling costs
- Easy setup
- Low operating cost



From the first point of contact to the point of dispatch all processes at WASCA are tracked and performed in accordance with our documented ISO 9001 quality system utilizing our CRM system.

Our sales staff also have full visibility of the job as it travels through the various stages of production and will take affirmative action to ensure the clients request is met.

At all stages of manufacturing, from off tool samples to parts in production, sample inspections are taken and recorded to ensure parts are manufactured to required tolerance. Secondary processes such as heat treatment, plating, drilling and tapping are subcontracted to a select group of quality suppliers who are required to provide a superior level of process control.

Full documentation and certification is received from all subcontractors who are audited on a regular basis as part of the WASCA quality process.

Similarly all products purchased such as raw materials are sourced through approved suppliers such as Bluescope Steel and all material comes with appropriate certification that is recorded and can be traced at all time.

If required, we can arrange independently tested NATA certifications upon customer request.



As well as providing valuable support to our production and Toolmaking facilities, our Engineering department consists of full CAD capabilities and prototype services.

We pride ourselves on producing solutions for customers which sometimes starts with only a sample.

WASCA can provide CAD drafting services to assist product developers in the design process.

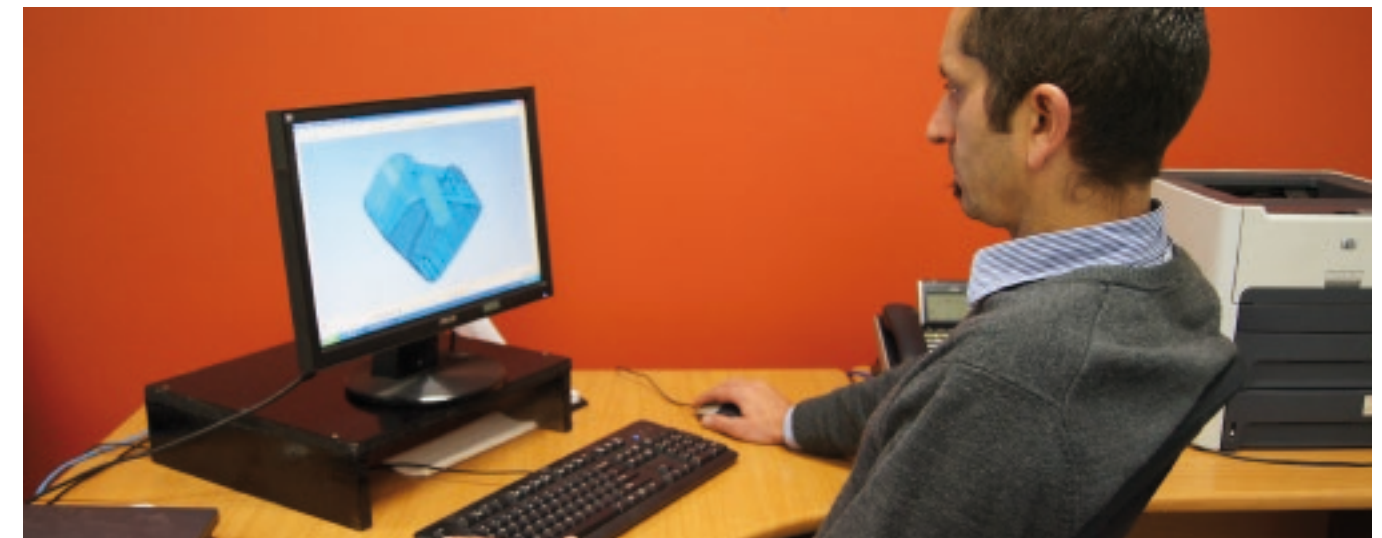
We are able to handle 2D formats such as DXF and DWG; and also some 3D formats such as STEP and IGES.

We are then able to produce prototypes in house to give you the greatest idea of how the product feels and functions physically.

As part of our consultation process we are able to provide:

- Engineering drawing to your specifications
- Prototype to develop the product correctly to the applications requirements
- Advice on the most appropriate manufacturing process based on cost and lead time
- Quotations for ongoing production

With our Engineering experience and resources we can assist in taking your company through the whole process from start to finish ensuring you end up with the exact product that was first envisioned.



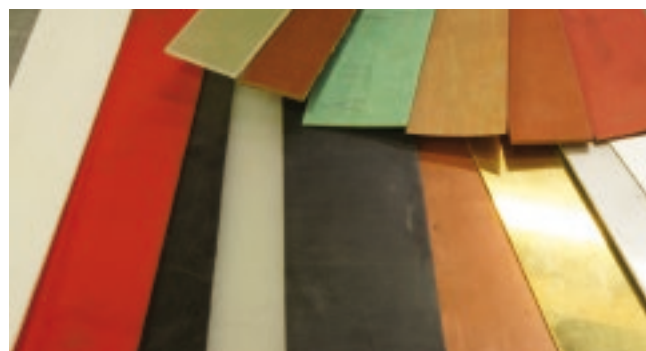
WASCA can manufacture components from an amazing amount of materials. We have aligned ourselves with some of the best material suppliers in Australia including our main partner: BlueScope Steel.

Our experienced staff understand the characteristics of each type of material allowing us to assist customers in finding the most suitable material for their project. We offer our customers full service capabilities and work with you day to day on a personal basis.



Materials Available

- Mild Steel to AS1594/AS1595
- Structural Steel 4140
- Spring Steel to C1045/C1055; used predominantly for Heat Treated parts
- Stainless Steel; Grade 301, 302, 304 & 316
- Aluminum
- Copper
- Brass
- Thermoplastics; Nylon, HDPE, PTFE (Teflon), PP - Polypropylene, Acetal, PVC
- Bakelite, G10 Epoxy Glass
- Red & Black Fibre
- EPDM, Neoprene & Rubber
- Klingsil, Novus, Tokai



In providing a complete solution, WASCA also has at its disposal an array of outside services to compliment the Engineering and manufacturing process.

So depending on whether it's production quantities or our Prototyping & Engineering service; WASCA can provide:

Zinc Electroplating to AS1789;

- includes Trivalent Cr3 (ROHS compliant),
- Zinc Yellow - Type C; Trivalent Cr3 and great torque control
- Black Zinc - Type E
- Black Nickel 480hrs
- Ford S437
- GMW3044
- Zinc Cr3 480hrs

Hot Dip Galvanising to AS4680

WASCOAT (Mechanical Galvanising to AS3566 Class 3)

Powder Coating, E-Coating, Nickel Plating, Phosphating, Black Oxide

Heat Treatment;

- including case and through hardening
- Carbonitride
- Stress relieving & Austempering
- Annealing
- Hydrogen de-embrittlement for products affected by Electro Zinc plating process



All of these services are backed by the following when required

- Thickness testing
- Analytical Solution Monitoring
- Automotive Standards Compliance documentation
- Neutral Salt Spray Testing

WASCA also provides a polishing service which can assist in preparing parts for coating processes and also removes all sharp edges when required. Abrasive Media such as ceramic or porcelain, is added to parts which are vibrated at high speed creating the friction to polish the product.



Due to global demand we have invested heavily in our overseas operations and also in building supplier relationships with key fastener manufacturers.

Our other Divisions of WASCA are heavily involved in sourcing premium fastener and engineering products from reputable manufacturers who can provide us with a broad range of products including Bolts, Screws and Nuts. With our engineering experience we can also assist in options for products requiring other types of manufacturing such as;

- Metal Casting
- CNC Machining; in a variety of materials
- Plastic Injection Moulding
- Laser Cutting

With our separate divisions, WASCA is able to consolidate several of your supply chains; reducing costs and increasing efficiencies. This is a crucial competitive edge in today's tough market conditions. From individual components right up to Project assemblies; WASCA can provide the right solution.



WASCA has over 50 years of experience and spanning a multitude of Industries including:

- Manufacturing
- Automotive
- Mining
- Civil and Commercial Construction
- Energy and Power



“WASCA is an Australian owned and operated family business. For more than half a century, WASCA has recognized the demand for high quality precision products and qualified technical engineering to provide a superior solution for custom applications.”

The foundation and longevity of our company rests on our core values of integrity, stability, ethical business practices and services exceeding expectations and perseverance. We value diversity and strive to build every relationship on mutual trust. This has contributed to our success in becoming one of the leading suppliers and manufacturers in this country. ”

“WASCA has been a great partner of BlueScope SMS for many years. Chris and Daniel Coyne continue to diversify this business following in the footsteps of their Father and Uncle. The recent commissioning of WASCA’s Waterjet Cutter combined with Chris and Daniel’s strong support for local material (including Zinalume®) and local manufacturing will ensure their business continues to go from strength to strength.”



BlueScope Sheet Metal Supplies

“We have welcomed the prompt service and consistent product quality from Wasca. Wasca has been supplying proprietary metal based components to Powers Fasteners for several years and we look forward to many more years of continuing to work with them.”

Powers Fasteners

“Reliance Worldwide’s relationship with WASCA spans over 30 years of supply, development and service for a range of our critical parts. Still being a key supplier of ours today is a testament to WASCA’s service and quality product; not to mention being in business now for over 50 years, proves how valuable they are as an Australian Manufacturer.”

Reliance Worldwide

“For the past 20 years and still current, WASCA has provided us with high quality customized and standard products. Their engineering, technical, and customer service staff has been very quick to respond to every request we have asked of them. We highly recommend WASCA to anyone who is looking for a reliable supplier.”

Austral Lock

“Having dealt with WASCA for several years now, I can attest to their excellent levels of service, quality and professionalism. Issues and enquiries are always answered in a prompt manner.”

Britax/Steelcraft

The background of the entire page is a technical drawing in white lines on a dark blue background. It features various mechanical components, including circular flanges with bolt holes, cross-sections of bolts, and other industrial parts. Some parts are labeled with letters like 'B' and 'A'.

WASCA

Head Office

34 Laser Drive
Rowville
VIC 3178

P: 03 9763 0833

F: 03 9763 2433

E: sales@wasca.com.au

W: www.wasca.com.au

sales@wasjet.com.au