Capability Statement

Disc springs, wedge lock washers and specialist pressings, made in South Africa since 1978

Reliable Pressings is an owner-managed South African manufacturer of conical disc springs, wedge lock washers and specialist spring steel components, with outsourced manufacturing capability in metal stamping and eccentric pressing, hydraulic deep drawing, impact extrusion and hot forging. Founded by Aubrey Friedman, the business was established originally in 1978 with a single 30-ton Raskin eccentric press. Today it is led by Ivan Uttley, from a new 20 m × 60 m (1,200 m²) factory in Westwood, Boksburg, all of it under crane. We supply standard and custom-to-drawing components to the aerospace, defence, mining, automotive, agricultural and general industrial sectors in Southern Africa and internationally, and we have representation in the United States and Europe.

Company at a glance

Item	Detail
Established	1978 (originally). Owner-managed, led by Ivan Uttley, with founder Aubrey Friedman available in a consulting role
Quality system	ISO 9001:2015, certificate ACS QMS 0510/03 (Alpha Certification Services), valid until 20 May 2027
Certification scope	Design and manufacture of specialist spring steel products, including conical disc springs, Belleville washers, wave springs, wedge lock washers and bearing preload washers
B-BBEE	Level 1 contributor (Exempt Micro Enterprise, generic scorecard; affidavit available)
Facility	31 Michelson Road, Westwood, Boksburg, 1459: 20 m × 60 m (1,200 m²), all under crane; forklifts for container loading
Markets	Southern Africa and international customers, particularly in mining and large engineering projects

Core competencies

- **Spring steels and alloys:** material specified by chemical composition, then heat treated and tempered to develop the required hardness, ductility and toughness.
- **Die and tool making:** in-house tool and die makers support all pressing lines; our die inventory has been built up over 40 years.
- **Metal pressing and stamping:** high-volume blanked and formed parts and washers from sheet or coil.
- **Hydraulic deep drawing:** deep-drawn and heavy formed components and covers, with full tonnage over the entire stroke.
- **Hot forging and impact extrusion:** parts formed above recrystallisation temperature, or in a single high-force punch stroke.
- **Presses:** 10 to 300 tonnes. No limit on diameter or thickness: oversize blanks are laser cut by external partners. Heat treatment is outsourced to specialist heat treaters.
- **CNC machining:** precision Group 3 reduced-thickness disc springs with machined contact flats.
- **Project management:** manufacturing integrated with the schedules and QA plans of large engineering projects.

CNC machines

Machine	Use	4th-axis capacity	Working size (3-axis L × W × H; lathes Ø × length)
Doosan DNM 6700	Milling	1,000 mm long, Ø250 mm max	1,400 × 600 × 400 mm
Enshu	Milling	500 mm long, Ø250 mm max	900 × 450 × 400 mm
Victor twin	Milling	–	500 × 350 × 250 mm
Doosan Puma	Turning	–	Ø250 × 600 mm
Victor 20	Turning	–	Ø200 × 250 mm

What we make

Product	Scope
Conical disc springs	DIN EN 16983 (formerly DIN 2093), Groups 1, 2 and 3, Series A, B and C, and sizes outside the series; emphasis on Group 3 (over 6 mm thick); thicker non-standard discs made to order
Belleville washers	DIN 6796 heavy-duty load washers for bolted connections, 30 sizes from M2 to M125
Conical wedge lock washer pairs	Our own wedge locking conical disc spring, which addresses both rotational loosening and slackening; Junker tested to DIN 25201-4
Other springs	Plain and slotted bearing preload disc springs, disc springs for valves, diaphragm springs, single-turn and multi-turn wave springs
Spring steel parts	Rail wheel arrestors, retainer clips and conveyor belt hinges
Special washers	Non-standard "popular specials" in all materials, supplied to most fastener and engineering support businesses in South Africa
Deep-drawn parts	High-pressure cylinder heads, wheel rims, exhaust baffles and more

Engineering services

- **Design verification:** calculated properties for the single disc and the full stack, finite element analysis of induced stresses, an updated method for contact-flat (annulus) dimensions, friction accounted for in stack designs, stresses at deflection (DIN EN 16984) and fatigue life estimates from the DIN EN 16983 fatigue diagrams, documented on our in-house stack calculation sheet (form RP-form-9.1.1-r12), giving load points, stresses at 25, 50, 75 and 100% deflection and best-case fatigue life at 99% survival.
- **Project-specific manufacturing:** an online tracking tool with a Gantt-chart project plan, documentation against each deliverable, and agreed client QA hold points. No engineering customer has ever faced penalties because of late delivery by us.
- **Failure diagnostics:** an impartial four-stage method (discovery, analysis, review and remediation), including in-situ dismantling with plant maintenance teams.
- **Independent testing:** witnessed stack load testing by internationally accredited third parties such as SGS Metlab or the CSIR.

Materials

Carbon spring steels (C75S, 65Mn) and chromium-vanadium 51CrV4, our standard for Group 2 and 3 disc springs; stainless spring steels (1.4310, 17-7 PH 1.4568, 1.4401); heat-resistant steels (1.4923, 1.4122); INCONEL X-750 and 718; and non-magnetic copper alloys CuBe2 and CuSn8. Every design is recalculated in the actual material.

Quality and compliance

- ISO 9001:2015 quality management system integrated from design to dispatch, with full batch traceability.
- A quality assurance data pack for each project: load characteristic curve, material certificate, and heat treatment certificate with Rockwell C hardness.
- Sampling inspection to ISO 2859-1 / ANSI/ASQ Z1.4 at AQL 1.0, as DIN EN 16983 requires.
- Export packaging in ISPM 15 compliant, heat-treated, stamped crates of 40 kg or less, suitable for forklift handling.
- Responsible sourcing: a Reasonable Country of Origin Inquiry for any conflict minerals; DFARS specialty-metal requirements understood.
- Quality commitment: every product carrying a Reliable Pressings serial number has a quality warranty, and any product that does not meet our quality promise is replaced at our cost.

Why Reliable Pressings

- A manufacturer, not a reseller: we design, verify, make and test in South Africa.
- Specialists in large Group 3 disc springs and bespoke stacks for demanding engineering projects.
- Proven on international projects, including furnace upgrades for mining companies in Australia, the DRC, Brazil and Kazakhstan.
- Easy to deal with: send a drawing or sample, the material and the quantity, and we will come back with a price.

Lead times

Washers 5–15 days • Disc springs 15–25 days • Custom pressings: tooling 10–15 days, plus production.

Contact us

Web: www.reliable-pressings.co.za • Email: info@reliable-pressings.co.za
Office: +27 84 408 3981 • Ivan Uttley: 076 834 1759
Address: 31 Michelson Road, Westwood, Boksburg, 1459
Request a quote: www.reliable-pressings.co.za (Request a Quote)