

Compression Springs - Tension Springs - Torsion Springs Conical Springs - Wire Shapes - Press Parts Multislide Components - Injection Moulding - CNC Machining

AEROSPACE : DEFENSE : AUTOMOTIVE : MEDICAL : ELECTRONICS





Bower Hill Industrial Estate, Bower Hill, Epping, CM16 7AQ TEL: +44 (0)20 85275599 FAX: +44 (0)20 85271142

## DESIGN, MANUFACTURE & ASSEMBLY OF PRECISION COMPONENTS

We are one of Britain's leading producers of high quality precision springs, wire forms and pressings

Whether the requirement is for a simple helical spring or a complex multi-stage pressing with precious metal contacts, Goss Springs offer a wealth of experience and supply customers throughout the United Kingdom, Europe and Worldwide.

GOSS SPRINGS

Our production capacity is further enhanced by our own 'in-house' Injection Plastic Moulding capability for customers who require over moulded parts.





Of particular value to many customers is our design and technical advisory service which can be brought into play at the concept stage to develop an initial idea or for the production of prototypes and one-off applications.

We have recently gained ISO/TS16949 automotive and AS9100 Aerospace accreditation which has already helped us improve procedures and streamline operations.

#### **CAPACITY**

**CNC Wire Forms - 8mm** 

**CNC Springs - 5mm** 

Hand Form / Prototype Springs & Forms - 10mm

Multi-Stage Progression Tools - 250 Tonne

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# ABOUT US

Goss Springs is a private family run business, with a wealth of history. The Goss Family having been involved in the spring industry for over 65 years, with the current Chairman Mr N.D.Goss and Managing Director, his son D.C.Goss running things today.

The company is located in Essex, and is one of the largest, privately owned Spring & Press Manufacturers in the south east. There is also a sister company who specialise in Press & Multi-slide Tooling, (PMT), which is located on the same site.

We employ some 75 - 100 staff, many whom have been with the company since starting their apprenticeships 50+ years ago.

The company has recently completed an overhaul of both the Office and Manufacturing facilities, providing a modern clean office area, along with a single storey, process flow based Production line.

The company tries to retain all process in house where possible, and unlike most other Springs companies, we carry out our own Grinding, Ultra-sonic cleaning, Barrelling, Heat Treatment, Stress-relieving, Calibration, Assembly and Tooling. Our Production capacity is further enhanced by our own 'in-house' Injection Plastic Moulding capability for customers who require over moulded parts.

We manufacture for many industries including Aerospace, Automotive, Defense, Electrical, Electronics, Medical, Security, Sports & Leisure, Hobbies and Toy and Marine.

In addition to our ISO9001 Approval, we have recently gained ISO/TS16949 Automotive and AS9100 Aerospace accreditation, which has already helped us improve procedures and streamline operations.

With years of quality experience we have developed a highly efficient Quality System supplying to the above industries. As a result of supplying to such a variety of customers, we believe our system is foolproof and adaptable to meet almost any individual customer specific requirements.

We have recently invested in new machinery to increase our wire capacity to 8 mm. Our toolroom has also been enhanced by the purchase of new Wire CNC eroders, and a new machining centre.

Our Goals for the future include Training and Cross Training our staff, and Continuing with Funding our Apprenticeship programmes giving the youth in the area a start on the Engineering pathway.

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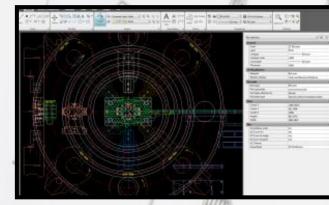
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## DESIGN

Everything Goss Springs produces is custom made and often developed in consultation with our design and technical advisory staff. This design work is often carried out in conjunction with our designated prototype workshop where customers can work alongside our own engineers if required.



This can involve taking an existing part and finding ways to improve the product life or to reduce cost of manufacture. In many instances we are involved at an early stage of product design where we can advise on material properties, methods of manufacture, heat treatment and surface finishing to produce a suitably robust component at an acceptable cost.

A wide range of materials is used including annealed and pre-hardened carbon steel, stainless steel, non ferrous alloys, Silver, Nickel Silver, Gold, the latest generation of thermo-bimetals and high Nickel Alloy material for corrosive situations and environments DESIGN, MANUFACTURE & ASSEMBLY OF PRECISION COMPONENTS.

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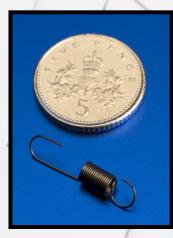
www.goss-springs.com

### PRECISION

We have continuously invested in the latest manufacturing technology picked from European, American and Japanese machinery manufacturers. This investment encompasses a wide variety of equipment ranging from high speed presses to sophisticated wire forming and spring machines which can coil, loop and load test without human intervention.

Fully automated production on multi-stage machines, ideal for large volume items, is matched by simpler and inexpensive hand operated machines for short runs or secondary operations where it is not possible or practical to perform all forming by automated process. 5

Between these extremes, there are a variety of methods and processes available to our designers to achieve the most cost effective manufacturing route for each component.



We make components for a variety of companies including many household names. You will also find our work in hi-tec microsurgery instruments, automotive and aircraft components.

We are a solutions - oriented business so it's likely that as well as manufacturing the part we will have had a hand in its' design.

This tiny wire form, made in 0.1mm stainless steel with a gold plated section, requires exceptional precision. Used in advanced microsurgery procedures, each one is microscopically checked and tested.



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### **HEAT TREATMENT**

After initial manufacturing, parts move on to our heat treatment section where automatically regulated furnaces and tempering ovens add the required degree of hardness or mechanical properties.



# **BARRELLING & PLATING**



Components can be bare polished or surfaced with a variety of protective or plating finishes applied to the whole or specific areas of the component.

Finishes include nickel, zinc, silver and gold plating and an almost limitless variety of enameled or sprayed colours.

The precise finishing of the part will have been specified at the design stage based on the required performance and life expectancy of the part and the environment in which it will be used.

We work with several NAMAS approved laboratories for the testing of corrosion protection.

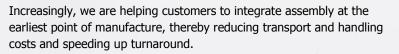




ASSEMBLY

With our rapidly expanding assembly department we can provide a one-stop source for sub-assemblies such as switches and electrical contacts.

We will contract for the supply of out-sourced parts, injection moldings are produced in our in house facility, and carry out assembly on our own premises maintaining our rigorous quality standards.



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#### Aerospace

Aircraft safety is an area in which quality cannot be compromised. Goss Springs are accredited to AS9100 Aerospace standards. We can supply F.A.I.R (First Article Inspection Report) on request





Our aerospace customers include the world's leading designer and maker of ejection seats. Goss Springs make the springs and small pressed parts for the seat and parachute system. Each individual item is inspected several times for metallurgic and manufacturing integrity before being certified for use.

### Defense





We supply some of the key manufacturers in the defence industry, with many of our components being used actively on the front lines around the world.

We have the history, knowledge & experience in understanding our customers requirements, whether it be 100% inspection & testing, special finishing, supplying samples or accompanying documentation.

And we supply to orders from just one component to hundreds of thousands. The level of quality will never vary on either.

We are Accredited to AS9100C the Aerospace Standard for Aviation, Space and Defense organisations.

We can help design and develop new ideas, and upon request supply new products with F.A.I.R paperwork.



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## Automotive





**Electrical** 

Goss Springs are accredited to TS16949 and work for a number of companies in the automotive sector supplying custom-made parts including springs, wire forms, pressed parts, contacts and sub-assemblies.

We supply to one of Europe's leading names in automotive lamps, who in turn supply several major car makers.

Goss Springs produces many of the metal parts used in their lamp assemblies.



When you look around the home or office, there are hundreds of everyday items that contain springs or wire shapes.

From Kettles to Toasters, Vacuums to Washing Machines, Light Sockets to Radiator Controls, there are units out there that have our springs in them.



We supply to one of the largest manufactures of Plugs sockets & light controls in the world today.



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#### **Electronics**

Almost every device in today's digital world of gadgetry contains a spring or wire shape of some form.



From Computers, Mobile Phones, Printers, Sat Navs, & Hand held's, there is a fair chance it contains a spring of some kind, perhaps even one of ours.





Security is another region where precision and testing is paramount for safety of the finished product. Goss Spring customers include those well known for its extensive range of fire detection, safety and security products.





We have worked closely with them on the development and manufacture of a variety of pressed and wire formed components including gold plated contacts assembled with injection moulded housings.

## Hobbies, Sports & Leisure



Goss Springs have made springs for various Toy, sport & leisure manufacturers. For parts in gyms, fishing equipment, bikes even springs for clay pigeon shooting traps .

We have supplied pressed parts for Hornby model railways, and parts for various model racing car systems. Even down to the small hobbiest who may require a one off part to be produced.

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## Medical



We have been supplying to the medical industry for many years, and were actively involved in the design and prototype of specialist equipment used to burn away cancerous cells.

We have the ability to manufacture and inspect springs so small that you need our sophisticated new VMM Machine with up to 200 X Magnification to even see the components

We can offer cleaning & inspection to medical standards, and provide Full Certificates of Conformity upon request



# Marine

Goss Springs are also providers of spring parts to the marine, oil and gas industries.



Spring parts working in or around the elements require extra corrosive resistance. Goss Springs can provide whatever level of resistance that is required to provide a product that is hardwearing and long lasting. We can work together with our customers and suppliers for the best quality possible.

We can also provide salt or life cycle testing where required.



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# QUALITY

Over the last 55 years we have developed a highly efficient Quality System supplying to the Aerospace, Automotive, Defence, Medical and Electronics industries. As a result of supplying to such a variety of customers, our system is foolproof and adaptable to meet almost any individual customer specific requirements.

Inspection checks are conducted throughout all stages of manufacture from Goods Inwards to Despatch. Our standard Inspection Procedures involve 1<sup>st</sup> off's, In process and Final checks before product is released to the customer.



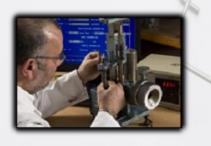
Additional QA Procedures can be implemented upon customer request.



The latest Process Control systems monitor and even adjust Production to ensure capability is maintained at all times, and parts are more than just within limits.

Batch testing is carried out as standard, but where required, inspection of each part can be carried out under controlled conditions.

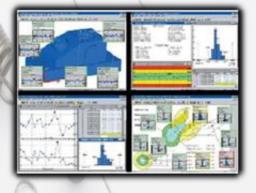
Many of the instruments used are calibrated in house, and some of the equipment used is so specialised that we manufacture it ourselves.





Inspections are carried using the latest measuring equipment available from basic hand held equipment, to highly accurate Video Measuring Machines.

We are able to supply required certification such as PPAP, FAIR, and ISIR's upon customer request.



To maintain our position as market leaders in the UK we have BSI Approval to:

ISO9001

TS16949 Automotive

**AS9100 AEROSPACE** 

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# CONTACT US

Office Location Bower Hill Industrial Estate Bower Hill Epping CM16 7AQ

#### **Goods Inwards / Goods Out Location**

Bower Hill Industrial Estate

Bower Hill Epping CM16 7AQ

### **Customer Services & Support**

If you've got a problem or a question that needs answering, we're here to help. Customer Support

Our telephone lines are open Monday to Thursday, 8am to 4.30pm, Friday 8am to 12.00 pm and if you send us an email, we will get back to you by the end of the next working day at the latest.

#### **Customer Services**

Telephone: +(44)0208 5275599 Fax: +(44)0208 5271142 Email: enquiries@goss-twings.com

#### **Quality Issues**

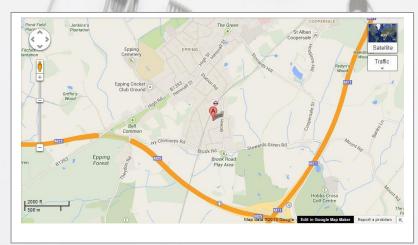
Telephone: +(44)0208 5018607 Fax: +(44)0208 5271142 Email: <u>quality@goss-springs.com</u>

#### **General Sales Enquiries**

Telephone: +(44)0208 5275599 Fax: +(44)0208 5271142 Email: sale@goss-springs.com

#### **Technical Support**

Telephone: +(44)0208 5018637 Fax: +(44)0208 5271142 Email: technical@goss-springs.com



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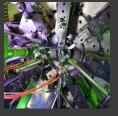
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DESIGN, MANUFACTURE & ASSEMBLY OF PRECISON COMPONENTS

~ OVER 65 YEARS ~ EXPERIENCE DESIGN & TECHNICAL ADVICE SERVICE











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#### www.goss-springs.com