Andel Plastics

Maxmag

intelligent
engineering

# shaping the future of plastics

Andel Plastics and Maxmag Moulded Magnets specialise in providing innovative solutions in the design and manufacture of high quality, precision engineered tooling and components.

Our mission is to be respected as one of the leaders in this field and set a new benchmark for the industry.

We view ourselves as partners with our customers and suppliers. A partner with an intelligent approach to precision engineering, who is willing to research and explore new processes, design and materials.

We put integrity and quality at the heart of all we do and we are committed to delivering engineering excellence through continual improvement.

If we succeed our customers deliver.



**Andel Plastics**

Andel Plastics has been at the forefront of intelligently engineered, quality solutions since 1975. We offer a comprehensive turn-key solution from concept to volume production – and everything in between.

Our injection moulding facility has machines ranging from 30 to 300 tonnes. We have enviable knowledge and extensive hands-on experience of a wide range of polymers. Ranging from commodity plastics through to technically challenging engineering polymers.

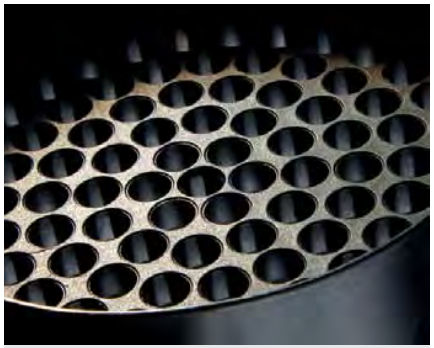
With the added advantage of an in-house toolroom, we also design and manufacture tools, as well as repair and modify existing tools.

**Maxmag**

Maxmag Moulded Magnets has over ninety years' experience in applied magnetics. We are pioneers in the technology of injection moulding a fully magnetised component.

This unique ability enables us to manufacture magnets in complex, multi-function shapes, impossible to achieve with conventional ceramic and metal magnets. This versatility enables product design engineers to place magnetic signals precisely. Allowing them to create and harness magnetic fields using fewer components with faster production times and lower manufacturing costs.

Due to the aggressive nature of the magnetic material, good tool maintenance is key to the lifespan of the tool and quality of the components. Being able to offer this service in-house enhances the lifespan and productivity of a magnet mould tool.



# andel plastics

In our experience, building the most effective working relationships with our customers, means getting involved in a project from the concept stage. Which can be as simple as a sketch, right up to a 3D solid CAD model. Being involved in the early design process and understanding the mechanical requirements and working environment of a component, ensures we can provide a robust solution to production and manufacturing challenges.

We have the imagination, expertise and experience to realise your ideas through an intelligent approach to component design.

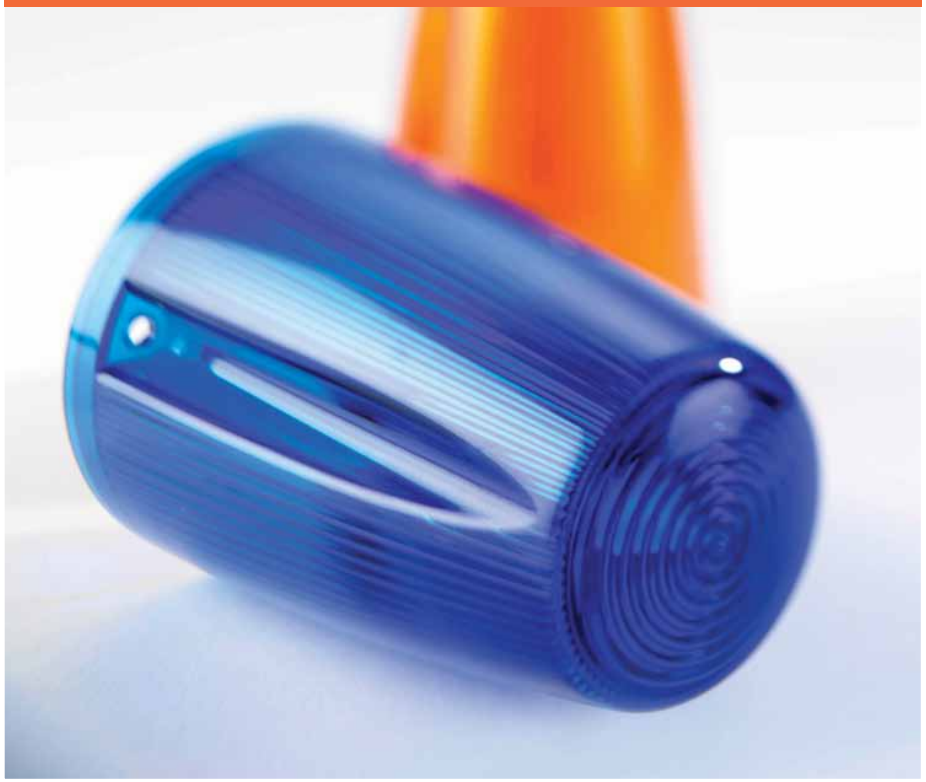
Over many years, we have gained a reputation for manufacturing precision engineered tooling of the highest quality and accuracy, delivering engineering excellence through investment in our people and equipment.

With a flexible approach to manufacturing, we are able to offer sampling, small batch runs all the way through to volume production and post-operative assembly. Likewise, we mould tools that we have manufactured ourselves or are supplied by our customers.

Our quality control systems meet all the requirements of ISO9001 and we embrace continuous improvement to ensure that these standards are maintained and evolve.

**We offer expertise in**

- Design consultancy
- Prototype tooling
- Toolmaking
- Injection moulding
- Cordinate measuring
- Overmoulding
- Post operational assemblies
- Clean environment packaging
- International Distribution



# maxmag

We manufacture magnets utilising the injection moulding process, a proven method of making components in complex shapes with tight tolerances.

Our expertise in applied magnetics, enables us to create magnets with value added features. This versatility enables design engineers to place magnetic signals precisely, between the interface of mechanical and electronic systems, giving them more freedom when designing a complex solution.

**We offer expertise in**

- Component design
- Prototyping
- Toolmaking
- Injection moulding
- Overmoulding and insert moulding
- Cordinate measuring
- Post operational assembly and machining
- International distribution

**Key benefits**

- A precision magnet can replace a sub assembly.
- We can mould gearteeth, thread forms, spindles, rib slots, cams and cross holes as part of the magnet.
- We can overmould and assemble magnets onto plastic bushes, metal spindles and other threaded inserts.
- Less need for post assembly
- Less need for post operative machining.

With a flexible approach to manufacturing, we are able to offer sampling, small batch runs all the way through to volume production and post-operative assembly.

Due to the aggressive nature of magnetic material, good tool maintenance is key to the lifespan of the tool and quality of the components. Being able to offer this service in-house enhances the productivity of a magnet mould tool.

**Isotropic and Anisotropic Magnets**

Isotropic magnets have magnetic properties equal in any direction. Whilst Anisotropic magnets have a superior performance in a specified direction or pattern. The majority of our magnets are anisotropic and our technology enables us to maximise the magnetic strength by orientating the material during the moulding process. We can orientate the magnets axially, radially, conically or in pattern combinations.

**Materials**

We have developed a range of materials providing a variety of magnetic strengths and physical properties.

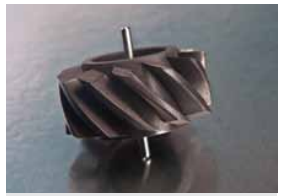
Consisting of magnetic micro-powders bonded in a polymer matrix, they are designed to maximise specific properties for diverse applications.

By recommending the correct polymer we are able to offer solutions for mechanical strength, high electrical resistance and a range of working temperatures.

**Multipole Magnets**

Most of our existing customers utilise multipole magnets and we can create poles on external or internal surfaces. Poles can be equispaced or configured specifically for a component solution. These types of magnets are often used in drive couplings, small motors and for motion sensing using a reed switches, hall effect or inductive sensors.

We have vast experience in the design and manufacture of injection mould tooling that allows us to mould a magnet, then overmould a polymer shape around it. We are also able to insert mould onto metal spindles and bushes, or existing plastic components, giving enhanced value added solutions.

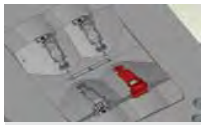


# toolmaking

The quality of an injection moulded component depends on both good component design and the accuracy of the mould tool. Our design consultancy and precision toolmaking experience allows us to work closely with our customers to produce robust and cost-effective solutions.

Over many years, we have gained a reputation for manufacturing precision engineered tooling to the highest quality and accuracy. Delivering engineering excellence through investment in our people and equipment.

Our capabilities range from the simplest open and shut tools, to multi-impression auto-unscrewing tools all being manufactured using the finest tool steels and latest CAD/CAM software.



In fact, we are so confident in the quality of our tooling that we provide a ten-year no maintenance guarantee for tools we design, manufacture and mould.*

We have many years experience in all the toolmaking disciplines such as spark erosion, wire erosion and precision CNC machining. We not only utilise these techniques in the production of our injection mould tools, but also offer each of these disciplines as subcontracted services.

Being in the same production facility, the in-house toolroom gives both Andel Plastics and Maxmag a competitive advantage over other suppliers, reducing leadtimes and downtimes on production and maintainance.

We offer a proactive approach to project management, from component design through to tool manufacture, sampling and volume production.

- Design consultancy
- Tool design
- Prototype tooling
- Fully hardened production tooling
- Auto unscrewing mechanisms
- Hydraulic core pulling
- Collapsing core tooling
- Insert and overmould tooling
- Single to multi-impression hot runner tooling

**Sub contracted services**

- Tool refurbishment
- Tool repair
- Tool modifications
- General machining
- Wire erosion
- Spark erosion

* excludes magnet tooling

# sectors and approach

Whatever your market, we can make a significant contribution to your business. Our ethos is to understand and meet your requirements. Over many years we have formed links with our material suppliers, this ensures we are well placed to manufacture components in not only commodity plastics, but also technically challenging engineering polymers. Allowing us to offer solutions across diverse industries.

We understand the importance of continuous improvement and combine intelligent component design to reduce post-operations and ease assembly, whilst maintaining the highest quality.

We view ourselves as partners with our customers and suppliers. A partner with an intelligent approach to precision engineering, who is willing to research and explore new processes, designs and materials.

Customers come to us with an initial concept and we have the imagination, expertise and experience to realise their ideas through good component design, advanced material selection, experienced toolmaking and high-quality manufacturing.

In turn, this approach supports our customers, enabling them to reach or remain at the cutting edge of their industry. If we succeed our customers deliver.

**Sectors**

- Medical
- Plumbing
- Signalling
- Automotive
- Electronics
- Metering
- Industrial
- Gas flow metering
- Water flow metering

**How to find us**

Andel Plastics and Maxmag offices and manufacturing centre is situated in the heart of the Midlands providing easy access for meeting and excellent manufacturing distribution by road, rail or air. The office are approximately 30 minutes drive from Birmingham Airport and the National Exhibition Centre.

**By Road**

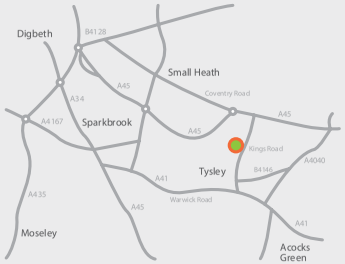
Andel Plastics and Maxmag manufacturing and offices can be reached via routes from all of the key motorway networks through the midlands. Kings Road can be found off the A45 Coventry Road in Tyseley.

**By Rail**

National and local rail links via New Street, Snow Hill, Moor Street and Tyseley stations.

**By Air**

Birmingham International Airport is situated approximately 4 miles away.

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