

**PRECISION TOOLMAKERS** 

# TECHNICAL EXCELLENCE IN EVERY TOOL

**TECHNICAL MOULDERS** 

## QUALITY ASSURANCE IN EVERY PART

Experienced toolmakers and moulders, Cybertools offers technically driven services to deliver the highest standard of plastic injection mould tools and moulded parts.

Established in 1997, Cybertools has grown its business with purpose built facilities in both UK and China, offering customers maximum value and flexibility.

Exacting quality control at every stage, and with experts in all aspects of a product life cycle, our team and state-of-the-art facilities gives your project a great start to its life, from concept and design through to production and assembly.

All projects are designed, specified and guaranteed by our UK team; with manufacturing optimised across our UK and Chinese facility according to your projects technical, budget and delivery requirements.

Cybertools reputation for providing complete and innovative solutions for the plastic injection industry, has established us as a key and trusted partner for companies large and small, locally and globally.

Whether utilising our design, toolmaking or manufacturing facility, our aim is to offer customers a comprehensive service from product conception through to the market place.

For excellent service and attention to detail, there is no better place to start your plastic injection project...



## INNOVATIVE DESIGN

## Mould excellence begins with the right tool design

Cybertools offer a complete design service from initial part concept through to mould design for manufacture, utilising the latest industry software.

Understanding the specific requirements and purpose of a plastic component, our design engineers work through every technical detail to simplify tooling, optimise mould flow, perfect polymer performance and minimise post-mould operations.

Years of 'design for manufacture' experience enables our engineers to predict potential issues and design innovative solutions that ease production and improve the final part functionality and aesthetics.

It is this expertise that has built Cybertools reputation as problem solvers - we make challenging projects possible.

#### **VERO SOFTWARE:**

visi Mould integrated CAD/CAM software provides a complete tool design solution based on industry specific and intelligent automation. Dynamic operation previews provide our designers with a 'real time' view of how component changes will affect the tool design.

**WORKNC** is a highly automated multiaxis CAM software for complex surface or solid models. It provides reliable, efficient, easy-to-program cutter paths, resulting in unmatched productivity and safety.

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After tendering to several companies around the world, we chose the Cybertools team to deliver a major redesign of our innovative reusable cup marketed globally under the 'pokito' brand. It was selling well, but we needed to reengineer the production and design to make it truly first class.

After extensive design and material consultations, Cybertools made revisions that have literally revolutionised the way the cup is made and the quality of the final product. The manufacture is now a state-of-the-art, fully automated production cell, with integrated robotics, which has dramatically reduced our cycle time and improved its functionality.

#### **POCKET ENTERPRISES LTD**



## RAPID PROTOTYPING

### Cybertools offer rapid prototyping technologies for plastic and metal

Working prototypes are a key element of any tool development. They enable us to test and optimise the tool design, while providing our customers with physical and viable representations of their final component.

Cybertools use the latest rapid prototyping technology to deliver substantial savings on time and cost, and for low volume production an alternative to injection moulding. All to Cybertools exacting standards.

#### **SLA (Stereolithography)**

UV light cures a photopolymer, layer-bylayer, making a durable plastic solid with good resolution of detail.

Can be used "as is" or as a master mould for a polyurethane vacuum casting. SLA is not typically fast but it wastes little material.

Materials: ABS and PC

#### SLS PROTOTYPING

Laser fuses powdered Nylon into a physical solid layer-by-layer, producing a robust prototype ideal for mechanical models.

Secondary finishing of the rougher surface texture is required to use as a master mould.

Materials: PA and PA/GF

#### **CNC MACHINING**

Suitable for plastic and metal parts and can be used to make one single prototype to up to 500 parts.

Materials: ABS, PC, PMMA, Nylon, Nylon + GF, PPS, PEEK, PP, POM, aluminum, steel, stainless steel, copper, brass

#### **VACUUM CASTING**

A cost effective alternative to injection moulding for low volume production of multiple components. Extremely fine detail and surface finish can be reproduced using this method.

Materials: ABS, PC, POM, PP, PMMA, PA and PA/GF

## PRECISION TOOLING

### **Engineered for accuracy** and consistency

Cybertools tooling facilities are in-house, with all tools manufactured in our UK or China toolrooms by expert engineers, with a shared ethos for precision, consistency and exceptional quality.

Each tool goes through rigorous check points throughout its production, with a comprehensive final inspection performed in our UK toolroom before it is approved for use in our moulding facilities, or delivered to the customer.

Cybertools highly skilled toolmakers produce beautifully engineered mould tools that ensure optimum performance no matter the part size or complexity of form.

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Brushee & Glide... 10 moulds and counting!

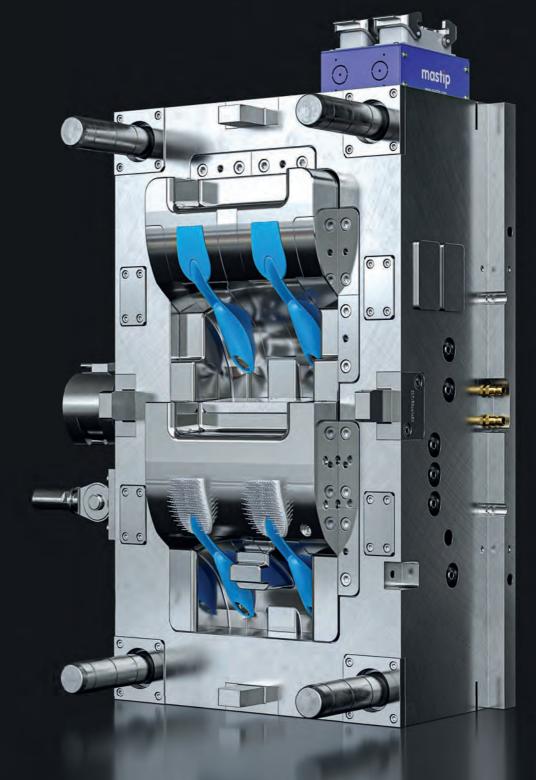
Cybertools has produced 2 shot tooling for our latest product range of domestic cleaning products.

Their 2 shot engineering experience coupled with the innovative design and excellent tooling quality, has seen our 'PO to production' time reduce significantly.

Their UK and Chinese facility support ensures our moulding production needs are met to the highest standards.

**EASY-DO PRODUCTS LTD** 

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#### **MADE TO LAST**

Highest quality in European grade steels, working with our preferred steel suppliers Meusburger and Uddenholm, for full UK warranties from either of our tooling facilities toolrooms.

#### **QUALITY ASSURED**

Tools from our UK and China facilities all carry a full UK warranty of up to 5 years and 3,000,000 cycles.

#### **TOOLING SUITES**

Capacity to manufacture up to 50 tools within an 8 week schedule from GA approval, making us the ideal tooling suite partner.

#### **TOOL TRANSFER**

Cybertools can transfer your existing moulds and convert them to fit our moulding machines, with maintenance and sample mouldings prior to production use.





## CONFORMAL COOLING

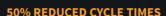
Cybertools are proud to introduce our new technology service...

## CONFORMAL COOLING

Building on our extensive experience in tooling and moulding, our **Opticool** specialist engineers improve dimensional and thermal control to reduce cycle times and improve non-uniform shrinkage issues.

We use the very latest in Direct Metal Laser Sintering (DMLS) technology to produce the conformal cooling channels and tool insert in a single manufacturing process to achieve complex component designs.

**Opticool** technology service makes conformal cooling affordable for our customers, delivering non-corrosive, fully hardened 52 HRC cores, cavities and inserts that are guaranteed for 1,000,000+ cycles.



Optimised cooling throughout the mould reduces cooling time especially for problematic areas such as thick wall sections and lack of drafted forms.

#### **75% LOWER REJECTION RATES**

Better mould temperature uniformity reduces differential shrinkage and therefore warping and shrinkage, leading to improved part quality.

#### 100% IMPROVED THERMAL CONTROL

Channels closely follow the mould form to reach crucial hard to reach areas and can be used to create increased coolant flow to carry off more heat.

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**Opticool** has transformed many areas where the company was seeing bottle necks and tolerance control issues within important elements of our production ranges.

By introducing **Opticool** into the equation through Cybertools, who we have been working together with for over 15 years, **Opticool** has reduced tolerance deviation by 25%, cycle times by 15%, and reduced the time for process optimisation and tool progression needed on new tooling by 50%. The results are a cost saving that increases our margins considerably.

#### HONEYWELL



## TECHNICAL MOULDING

### For precise high-quality plastic parts, every time

Manufacturing more than 50 projects a year, generating over 100 mould tools, and producing over 20 million plastic components, Cybertools injection moulding capacity includes high spec ancillary moulding equipment and robotics which is specifically designed to cope with difficult engineering polymers and more general purpose materials alike.

Working closely with our preferred material handling partners Piovan and Sepro robotics, allows our technicians to optimise the production process to achieve consistent and accurate parts that are fit for purpose regardless of the selected engineering polymer.

Cybertools approach to injection moulding is led by over 23 years of technical experience in achieving optimum performance from tool, machine and polymer material.



#### 35 INJECTION MOULDING MACHINES

Situated across our UK and China facilities.

#### 35T - 450T CAPACITY

From industry leaders Romi, Negri-Bossi, Sumitomo Demag, Haitian and Boy.

#### **UK DRIVEN**

Our facilities work in partnership with UK led management, support and guarantees.

#### **TECHNICAL MOULDING**

Twin-shot, Overmoulding and Insert Moulding.

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The team at Cybertools have assisted us at the crucial stage of 'design for tooling' for our TXA and RXA units. Using their tooling design team, mould flow analysis and toolmaking experience, we have been able to bring our new product to completion, ready for consumer launch.

Our suite of tools were designed in the UK and manufactured at Cybertools Chinese facility, which enabled us to meet the milestones required for launch, whilst planning long term UK production and assembly at Cybertools UK factory.

**BYTE ALARMS LTD** 









## QUALITY ASSURANCE

#### **Exacting standards you can trust**

Cybertools employs rigorous and continuous QA protocols throughout the production process; including part measurements, down to 2 micron accuracy, every four hours.

Full PPAP and internal quality control systems are backed by ISO, BSI and UKAS accreditations, giving you complete confidence in our commitment to the highest quality assurance for your project.

Cybertools can also implement QA protocols specific to your project requirements. We regularly enhance our own systems with industry checks to deliver products with the complete accreditation needed for market, and all final inspections performed by our UK team for full UK warranties.

## SECONDARY OPERATIONS

#### A quality part deserves a quality finish

From complete and sub assemblies to surface finishes and packaging, our purpose-built assembly areas are designed to provide the best possible production flow.

Cybertools have the flexibility to run a varied program of secondary operations, according to each projects specification. We assess and advise which post moulding processes and assembly options would be most advantageous for our customers to perform with us, in terms of time, cost and final product quality.

Facilities allow for assembly by hand or with automation and electronic component testing, and Cybertools also offers a round-the-clock sub contract wire erosion facility.

#### STANDARD + BESPOKE OPERATIONS

Flexible for standardised and bespoke operations, we closely manage and monitor output to deliver consistently high-quality moulded assemblies.

#### **FLEXIBLE CAPACITY**

Our capacity includes machine operations, thread insertion and partnered Ultrasonic welding; through to pad printing, labelling and packaging.

#### **STREAMLINED SUPPLY CHAIN**

Performing post moulding operations with Cybertools reduces sub-contractor requirements, improving delivery schedules and simplifying your supply chain management.









#### **SOME OF OUR RECENT CLIENTS**

























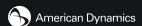
















#### **YBERTOOLS** TOOLING AND MOULDING EXPERTS

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