

CAD design  
Prototyping  
Laser cutting  
Metal forming  
Fabrication  
Metal finishing  
Product assembly  
Delivery

**Advanced  
manufacturing  
solutions**



**CONSTANT**  
G R O U P

# Constant

We provide advanced manufacturing solutions right from design all the way to volume delivery fully serviced from our manufacturing site in Oldham, Greater Manchester based in the North West of England. Established in 1970 our British family run company operates from a purpose built factory with considerable in-house capabilities and best in class technology. We specialise in providing manufacturing support to industry including telecommunications, EV charging, renewable energy, food processing, pharmaceutical, aerospace and automotive.

We offer a single source solution with specific emphasis on sheet metal fabricated products including electromechanical assembly.



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# Our site

Modern purpose-built factory in the heart of Greater Manchester with everything under one roof.

Our design studio boasts multiple seats of Solidworks, Creo and Radan to assist with full 3D model build / 3D product visualisation and development of engineering drawings.

Our factory offers the full range of subcontract metalwork services including fibre laser cutting, CNC punching, CNC folding, fabrication, bead blasting, polishing, paint finishing options and electromechanical assembly.



## production

- Bystronic fibre Laser cutting machine with Automation
- Trumpf T3000R punching machine with Automation
- 8 off Bystronic Xpert Press brakes 1M to 3 Metres.
- Pemsarter machines with automation
- 18 off welding bays with MIG / TIG set up / CD Stud Insertion
- 3 off powered sheet bending rolls 1.5m to 2 metres
- Classic fabrication bay, guillotine, flypresses, drills, presses
- 18 off fettling and polishing bays
- Deburring and grinding machines
- Stainless only bead blast line
- Full automated powder coating lines
- Heavy fabrication powder line with box oven
- Wet spray
- Polyurea coating line
- Dedicated material segregation

## team

- Business development team
- Project managers
- Design engineers working in Solidworks, Creo and Radan
- Production managers
- Fully skilled sheet metal workers
- Fully skilled TIG/MIG welders working in multi metals
- Machine operators
- Logistics department
- In-house apprentice scheme



# From design...

As a full-service solution for sheet metal biased products we can facilitate every stage from design to delivery for your next project, consider us as your complete manufacturing partner.



## design

Our team of CAD designers enable us to offer full design services. We utilise 3D software from Solidworks, Creo and Radan and produce fully developed 3D models for full 3D visualisation and FMEA analysis. From model sign off we produce full manufacturing drawings.

Our designers all have a strong manufacturing background and are conversant with our machines and processes so that you can be assured that all design work is manufacturable, efficiently and cost effectively. We also offer appraisal of existing product with a view to value engineering and identifying cost-savings in the supply chain.



## prototyping

With new products we provide prototype production to make sure the end result is fit-for-purpose and can be volume produced in the most cost-effective manner. This gives the customer perfect opportunity to test and provide approval before volume production.

Our prototype department provides an expedited service through the factory to ensure that there is no delay to production volumes.



## cutting

### **ByStronic fibre laser cutting with full automated sheet handling**

High precision fibre laser cutting power provides unrivalled benefits and cost savings to both us the manufacturer, and you the client.

As there's no tooling costs, and therefore no outlay, we can produce small batch runs that would sometimes be unthinkable using traditional techniques.

- › Cuts up to 3000×1500mm sheets
- › Cuts up to 20mm thickness in mild steel, 15mm for stainless steel and 15mm for aluminium

### **Trumpf punching machine with full automated sheet handling**

Our Trumpf 3000 punching machine is suitable for small batch runs and large volume production, typical punching jobs can be a simple profile to a complex profile with forms.

- › Cuts from 0.5mm up to 8mm sheet
- › Accuracy of 0.02mm



## bending

We have a full range of precision sheet metal forming machines including 8 off Bystronic Expert CNC press brakes all off-line programmed, monitored and ranging in length from 1 metre to 3 metres, alongside 3 off sheet metal rolling machines up to 2 metres in length for the production of cylinders and cones.

Machines are rated to 120 tonne which allows regular production folding up to 12mm thick stainless steel. Bystronic CAD CAM software can accept 3D design models and develop complex folded parts taking into consideration forms and studs. CNC programs for these machines are generated swiftly offline and stored electronically for future use.



# ...to delivery



## fabrication

Alongside cutting and forming we offer traditional sheet metal skills from time served Tinnerns as well as full welding facilities allowing for a secure supply chain and full cost control of projects.

Our in-house team allows us to be able to facilitate contracts from prototypes to volume production.

### Services offered

- › SPOT welding
- › STUD welding
- › Stainless steel TIG & MIG welding
- › Aluminium TIG & MIG welding
- › Carbon steel TIG & MIG welding
- › Special alloys TIG welding



## finishing

### Powder coating

High Speed fully automated powder coating plant consists of in line pretreatment system, drying oven, in line powder coating booth and curing oven. Heavy fabs powder line with push – pull line and box oven capable of handling fabrications up to 500Kgs.

Powder coating finishes available from AkzoNobel, DuPont and other preferred suppliers.

### Wet paint

Wet paint line with curing oven for application of specialist wet paint systems.

### Polyurea spray

Polyurea line for application of seamless, waterproof flexible coating with high tensile strength and excellent abrasion / impact and chemical resistance.

- › Bead blasting exclusively for stainless steel, up to 4 metre long component length
- › Polishing services, sanded, satin polishing ranging from 3.2ra to 0.1ra and mirror polishing 0.05 to 0.01ra
- › Plating
- › Galvanising
- › Anodising



## assembly

Complete service in the pursuit of single source manufacturing which in turn reduces customer lead times, retains a single control point and results in lower unit costs per finished part.

We can manage the full supply chain, stocking of bought in parts to full electromechanical integration all tested and certified.

### Services offered

- › Mechanical assembly
- › Electromechanical assembly
- › Cable assembly and harness solutions
- › IoT installation
- › Soak testing
- › Digital print application
- › Vinyl wrap
- › Vinyl lettering application
- › Labelling
- › Contract packaging

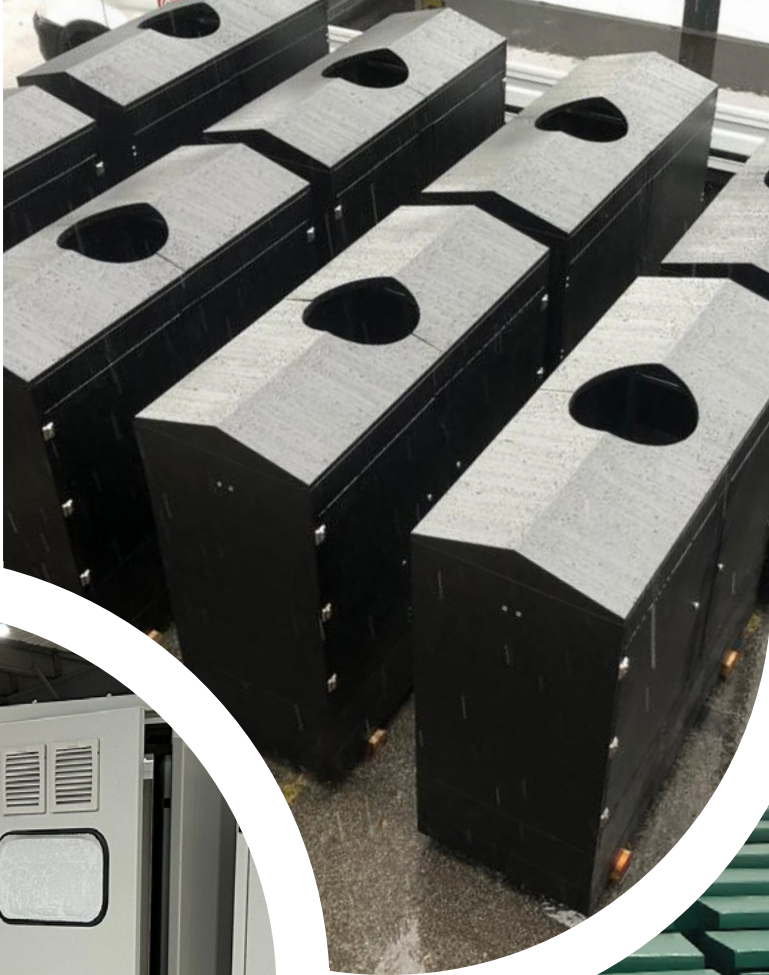


## delivery

We've a full logistics team that can manage small deliveries in LGV vehicles through to large fabrications, enclosures, street furniture on our HGV curtainsiders.

We can deliver JIT or from a stocked warehouse and manage deliveries up to the point required on site.





## sector Cabinets and enclosures

There isn't a style of cabinet or enclosure we haven't manufactured at Constant! We are the manufacturers of choice for telecoms, utility companies and various industrial applications. We can assist with complete ground up design to full production including electrical integration and guide you through approval process for IP and fire testing.

### Cabinets and enclosures

- › Telecoms cabinets
- › IP rated cabinets/enclosures
- › Fire rated enclosures
- › 12U-42U server cabinets
- › 19 inch network cabinets, data racks
- › Telecoms pole wraparound enclosures
- › Electrical switch cabinets
- › Feeder pillars
- › Medical/dental cabinets
- › Media cabinets
- › COSHH cabinets
- › Security safes
- › Key cabinets
- › Van boxes
- › Cash boxes



# sector Telecoms

We design and manufacture telecom cabinets and data racks for a diverse client base of infrastructure operators, system integrators and global OEMs across a wide variety of markets.

We service OEMs working in rail, fixed and mobile networks, data centres, water and energy utilities, road and defence.

## Telecom solutions

- › Outdoor enclosures
- › Indoor enclosures
- › 19", ETSI and ANSI formats
- › IP (ingress protection) rated
- › Thermally managed
- › Full integration
- › Smart monitoring
- › Electro-magnetic fields RF/EMC solutions
- › Seismic activity/shock and vibration solutions
- › FTTH/P/H infrastructure enclosures
- › Next generation wireless cabinets
- › Pole integration design



sector

# Media, displays & DOOH

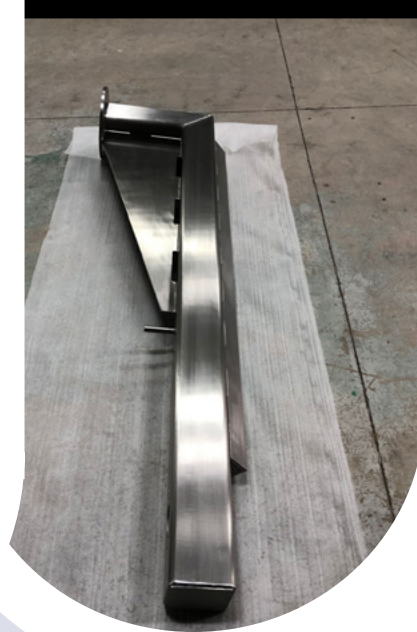
We understand that in this industry things move fast, from a sketch to 3D model / photo real renders to working prototype we can support on your project. Its not always just about the metalwork in this industry, support is usually required with electromechanical assembly, software installation, soak testing.

Partnering with us will ensure that your product meets all the basic requirements of IP rating / thermal management so that your equipment will perform at its best, achieving high levels of reliability and uptime.

## Media, displays & DOOH

- › Display totems
- › Media display stands
- › Touch screen POS enclosures
- › DOOH small, and large format
- › Promotional stands
- › Bespoke expo stands





## sector **Food processing**

We understand this sector and the requirements for meticulous cleanliness, accuracy and quality. We look for long terms partnerships where we can support with new product integration and assist with cost reduction programs on existing product lines. We have a dedicated 9,000 square feet of space niched to this market with full material segregation and dedicated machinery dealing with the cutting, fabrication, deburring and polishing of stainless-steel product.

With years of experience of stainless-steel fabrications specifically for food manufacturing and food packaging we can offer the complete solution from design, fabrication to integration.

### **Food processing**

- › Food processing equipment
- › Food packaging equipment
- › Food conveyor lines
- › Bottling and canning lines
- › Machines frames and chassis in both sheet and tube

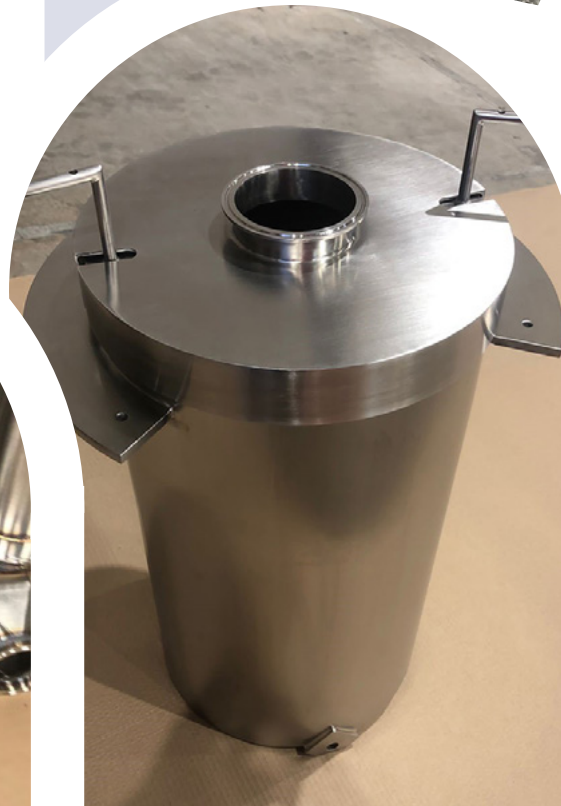
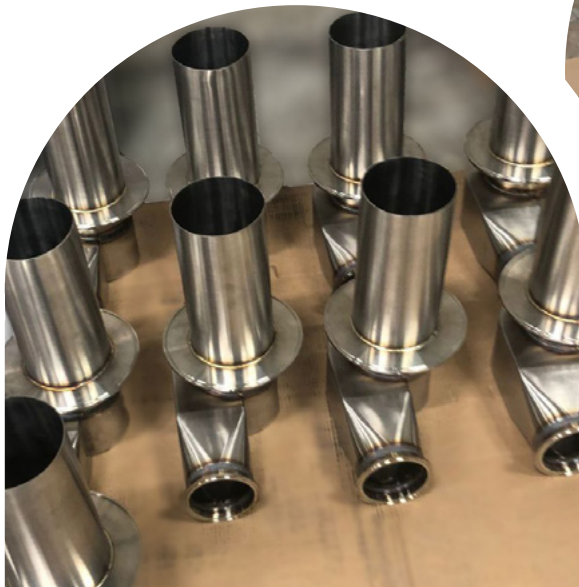


# sector Medical & pharma

We have extensive experience in the fabrication and assembly of precision metal components for the pharmaceutical and medical industry. Constant Group has the capacity, experience and resources to deliver on the high industry standards expected within this sector. We have a dedicated 10,000 square foot cell for pharma and medical projects with purpose-built plant for special products all twinned with specialist staff fully experienced in this sector. We understand the importance of material traceability/segregation and have robust systems in place to record and report.

## Medical & pharma

- › Pharma production equipment
- › Scientific equipment
- › Powder handling equipment
- › Metal detection equipment
- › Sterilisation equipment
- › Containment and clean air
- › Medical cabinets
- › Medical accessories
- › Defib cabinets



# Case studies

Learn more about the manufacturing process, and our capabilities with our case study selection. You can view a full [showcase of products online](#).



## case study Mobile Phone Mast Enclosure



- Customer**  
Mobile telecoms
- Industry**  
Telecommunications
- Destination**  
Streetside
- Services**
  - CAD design
  - Laser cutting
  - Bending
  - Fabrication
  - Powder coat
  - Assembly

### Background

Most of us will have walked past one of these cabinets, whether it's popping to the post box or walking the dog, however you probably didn't even notice!

These cabinets are in fact enclosures that wrap around a structure, a telephone mobile mast in this case, to house equipment and cabling for the structure. This telecoms metal enclosure is made from pieces of stainless steel with a powder coated finish.

### Approach

#### CAD design

Our client, let's call them Client A for this case study, provided all the drawings and instructions for the enclosure. Constant's team of CAD engineers imported the CAD files and aligned them for our machines and procedures, to give the most efficient manufacturing process for the enclosure.

The enclosures are constructed from several sheets of special grade stainless steel at 1.5mm thick.



#### Punching and Laser cutting

The phone mast's enclosure main body was cut on our Trumpf TruPunch 3000, and the secondary parts such as internal pieces and the top hood were cut on our Laser machine.

Having a range of machines at Constant allows us the flexibility to use different machines for different parts, producing the best and most cost effective method of manufacturing for the project at hand.

#### Press brake

Up next is the bending phase on the Press Brakes. The metal enclosures are quite large, so long resting braces are used to prevent the pieces warping and aid the operator in performing the bends. You can see them extruding out from the press brake.



## case study Mobile DOOH display



- Customer**  
DOOH display solutions company
- Industry**  
Rail
- Destination**  
Leisure and retail centres
- Services**
  - CAD design
  - Laser cutting
  - Bending
  - Fabrication
  - Powder coat
  - Assembly

### Background

Sometimes a display unit has to be easily moved, portable and cable free, to accommodate the continuous changes of a store or retail layout, making at times the traditional freestanding DOOH displays cumbersome. We were approached by an existing client to redesign their existing mobile display totem, to be easier to move, lighter to move, and constructed with additional features such as being keyless.

### Approach

#### CAD design

The CAD team got to work on reviewing and engineering the existing display into a reworked model. The new version was to have a better front panel design so it was more discreet, bespoke cable management system, and self-hooking keyless cabinet body for easier installation on-site and better equipment protection when in use.



# About us

In 1969, Harry Garlick was told he 'didn't have enough money to buy a fish and chip shop', let alone an aluminium business. Harry proved them wrong and in 1970 along with son Richard, Constant Aluminium Supplies Ltd was formed.

We're delighted that 50 years later, lead by the third generations of Garlicks, his company still flourishes today. Luckily in the early 70s Richard had met Maggie, and unknowingly to his father who passed away in 1977, the legacy of the company was to continue with their children, Matt Garlick and Emma Gilligan (nee Garlick), now joint Managing Directors.

Maggie, formerly a Teacher, was the company's original 'sales girl' and over the years has developed the business alongside husband Richard. They oversaw the offices moving not far from the original small warehouse and office on Greenhalgh Street, to the current 60,000ft<sup>2</sup> plant in Meadowbank Business park, adjacent to the M60. The current premises offer a great location for our logistics team for delivering around the North West and Yorkshire areas.

Over time the fabrication side of the company grew into a flourishing precision sheet metal manufacturing business, now supplying FTSE100-500 companies, leading high-street brands as well as our local Oldham council.



**Matt Garlick  
Emma Gilligan  
Richard Garlick  
Maggie Garlick**



**Richard  
and Harry  
Garlick**



**First site,  
1970s**



**Current site,  
2020s**

# Contact us

Please use the contact information below to get in touch with us. You can also pop in anytime, we're open 8am – 5pm, Monday to Thursday.

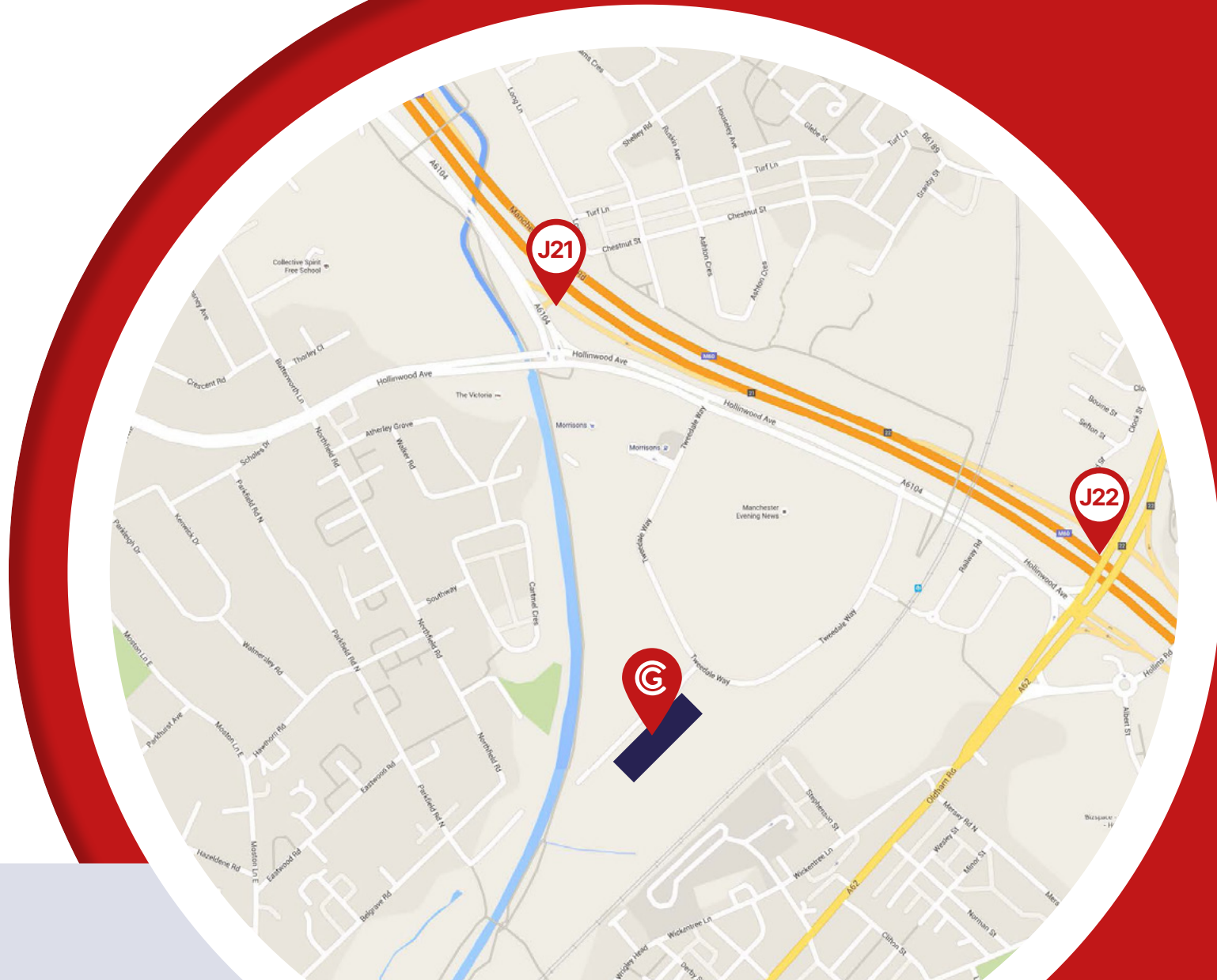
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# Advanced manufacturing solutions



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