# SMS SHEET METAL SERVICES

## Fabrication to finishing under one roof

Laser Cutting & Profiling

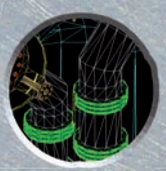
CNC Punching & Folding

Fabrication & Welding

Inserting & Stud Welding

Powder Coating

Pre-treatment



CAD Design & Prototyping

SMS SHEET METAL SERVICES

# Sheet Metal Services (Seaforth) Ltd.

Based in the North West, established 1984 serving many industries with quality sheet metal fabrication and powder coating finishes. ISO9001 accredited since 1996.

## Our Mission

*"Our aim is to work with our customers to further enhance our services and to provide total customer satisfaction as well as leading the way forward in producing quality components. We pride ourselves in providing quality service and delivering on time every time at competitive prices."*

Ross Burns (Managing Director)

## Expertise in sheet metal fabrication and finishing services

SMS provides customers with a 'one-stop-shop' designing their products, fabrication and finishing all to a high quality standard. With our latest investments we can stay ahead of our competitors and provide a quality job at a competitive price.

- **Laser Cutting & Profiling**
- **CNC Punching & Folding**
- **Fabrication & Welding**
- **Inserting & Stud Welding**
- **Powder Coating**
- **Pre-treatment**
- **CAD Design & Prototyping**

www.**sms**.uk.net

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LASER CUTTING & PROFILING

# Laser Cutting & Profiling

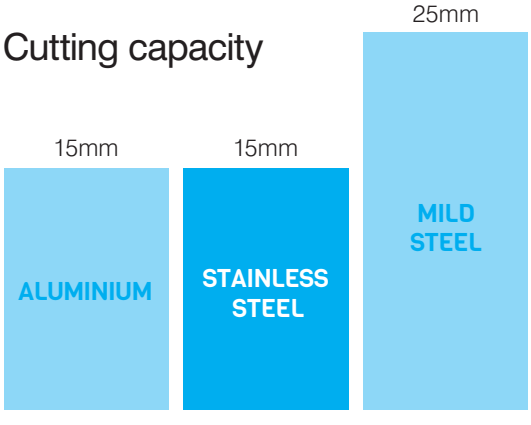
A significant investment has been made over the last couple of years to provide the customer with a quality product and on time delivery.

We have achieved this by acquiring two Amada Laser machines that have the capacity to cut different types of materials as detailed below.

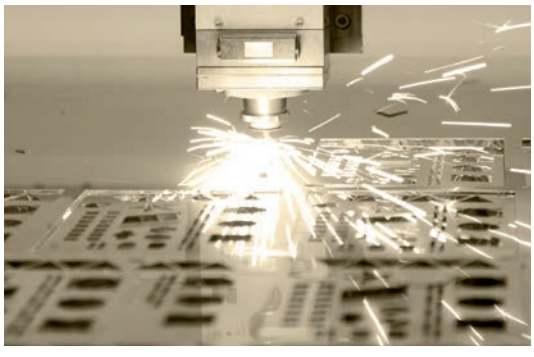
- Improve cutting times
- Cutting complex profiles
- Edge quality improved
- Increased productivity
- Consistent accurate laser cutting

Both machines operate on a 24 hour basis unmanned due to the fully automated loading facility *'Lights out technology'*.

## Cutting capacity




Profile size range:
10mm x 10mm x 4000mm x 2000mm



## Supplying the entire manufacturing sector

Using the latest and most powerful laser technology. Laser process has the capability to produce the standards required throughout manufacturing, supplying the following sectors.

- Automotive
- Motor sport
- Transport
- Material handling
- Construction
- Architectural
- Mobility
- Shop fitting
- Fabricating
- Steel furniture
- Aerospace
- Marine
- Agriculture
- Security
- Furniture
- Special projects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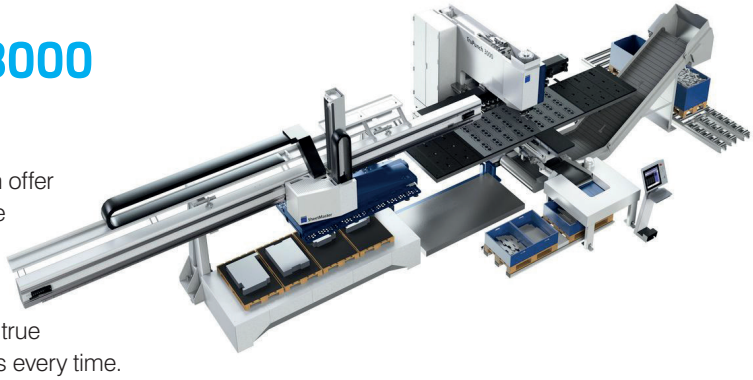
PUNCHING & FOLDING

# Punching & Folding

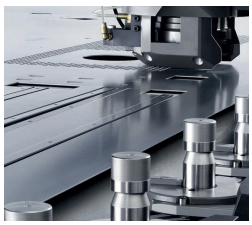
## Trumpf Trupunch 3000 Large format



With our Trupunch 3000 machine, we can offer unrivalled quality and efficiency due to the state-of-the-art technology and versatile tooling options available.

The electronic punching head provides a true alignment that provides burr free products every time.

There are a multitude of tooling options from shapes, cluster tools, louvres, joggles, dimples, electrical knock outs to even countersinking and tapping options. The machine is also capable of engraving product codes or stamping company logos if required.



To complement all of this, the machine is fully automated using a sheetmaster. This gives a guarantee of fast process reliable loading, unloading, unstacking and sorting of the sheets and finished parts. It uses suction cups to take the sheets from the loading station and move them to the machine bed.

Below is the technical spec of the machine.

| | |
|---|---|
| **Maximum stroke rate** | |
| Punching (E = 1mm) | 800 1/min |
| Marking | 2500 1/min |
| **Working range** | |
| Punching mode, X axis | 3050mm |
| Punching mode, Y axis | 1525mm |
| Maximum sheet thickness | 6.4mm |
| Maximium workpiece weight | 230kg |
| Maximum punching force | 180 kN |
| **Tools** | |
| Multitool changing time | 0.3 sec |

## CNC folding and forming

We believe that you get what you pay for, and over the past 25 years, Amada UK have helped us stay ahead of our competitors on folding technology. 8 axis Amada gives you state of the art bending, at its best.

1 off Amada HFE 100-30: 3000mm/100 tonne automation technology.

3 off Amada HFE 80-25: 2500mm/80 tonne with automation technology.

CNC press brakes are designed to form materials accurately within 0.1mm. Prototypes and large batch consignments are ideal, especially with the quick release tooling and much improved setup times.

SMS press brakes automatically monitor and adjust the bending force across the beam length at 6 points. The control panel technology adjusts and compensates for any potential variation in the raw material thickness. This gives angle consistency and perfection over the full bend length.

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FABRICATION & WELDING

# Fabrication & Welding

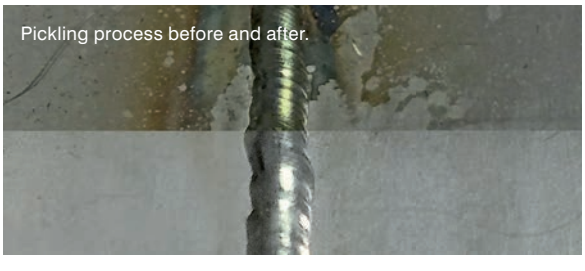
## Welding, cleaning and polishing

Mig and tig welding to high rating standards.

Weld dressing and specialist polishing on ferrous/non ferrous materials. SMS only use approved suppliers, for the supply of quality abrasives. This guarantees our customers a quality product.

Our fabricating department have a wealth of experience in all aspects of finishing products, to each customers specification. SMS specialise in working with high value materials. (Stainless steel 316/304 grades, aluminium/ copper and brass.)

We also offer a pickling facility that will remove any burn marks or imperfections caused by the welding process.




## Resistance spot welding

Spot welding, is a unique and beneficial alternative to mig and tig welding.

Resistance spot welding (RSW) is a process in which contacting metal surfaces are joined by the heat obtained from resistance to electric current. Work-pieces are held together under pressure exerted by electrodes.

Resistance welding gives a very clean finish that does not require any cleaning or polishing prior to any surface finishing. 3 off 30KVA machines that weld up to 6mm mild steel/stainless steel.

An ideal solution for low cost/high volume products. Offering the minimum amount of setup time and a much simplified method of sub assembly parts.

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# Inserting & Stud Welding

## Inserting

SMS have three Pemserting machines, for self-clinching and inserting.

A pre-punched/laser cut hole for individual fasteners, guarantee accurate positioning. This is a major benefit to our customer, helping them to achieve the required IP65 rating, for their electronic products.

We only use high quality PEM fasteners. Pemserts are ideal for electronic PCB manufacture. Accurate to within 0.15mm across centre to centre positioning.

Self-clinching Hank bushes/ clinch nuts/ studs, from M2.5 to M10. thread.

All materials including Stainless steel & aluminium.

### Snap top fasteners

Offer a very unique method of mounting PC boards, without screw or nut fitting.

### Blind stand-off fasteners

Excellent product for all unexposed mountings.

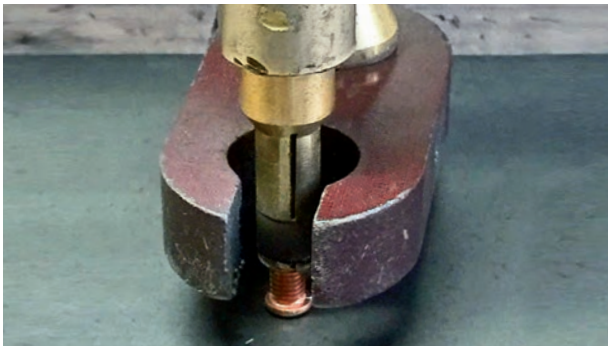
Pemserts are used in all fields of sheet metal manufacture today. They have revolutionised the automotive, electronics and other industries.

## Stud welding

CD studs are an excellent alternative to Self-clinching products.

Copper plated studs that give an excellent contact adhesion to both ferrous & non ferrous materials. Extremely strong & resistant to shear. (even on aluminium).

An ideal process for aesthetic components that require little or no witness marks or blemishes. Primarily used on electrical earthing/PC board installation.



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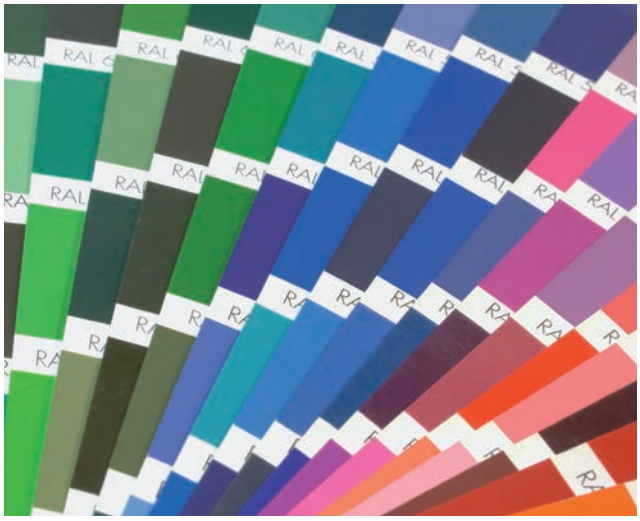
POWDER COATING

# Powder Coating

SMS provide the highest quality in surface finishing.
Much improved lead times, contribute to supplying our clients total customer satisfaction.



Powder coating is an extremely durable and scratch resistant surface coating. It is pliable but hard enough to withstand impact without scratching. It has become the most popular process for finishing metalwork. A quick and easy electrostatic application gives a high quality finish.

The powder is applied using automation. Programmable robotic reciprocators coat the material with the required amount of micron thickness. The final process is to stove the product between 200°C and 240°C to guarantee maximum curing.

Investment in this process has been paramount and helped SMS to keep costs extremely competitive, supplying our customer with a quality finish, at an affordable price.

We supply products finished in a full range of BS and RAL colours using both epoxy polyester and full polyester. *Epoxy polyester powder* for internal environment and *full polyester powder* for external environment.

Full/semi-gloss, matt, textures, metallic, heat resistant and hammer finishes, are often ex-stock and ready available. If we do not stock a special or bespoke colour/finish, we can usually obtain it from our registered approved suppliers.

Most paint specifications are achievable, as well as accurate colour matching from a customer sample.

## Zinc primer

Zinc rich primer is considered to be one of the most effective anti-corrosive paint systems today. A proven track record that guarantees this application will extend the products lifespan.

Any specific colour/finish can be applied over the primer, with a top coat finish. The thickness of zinc primer can be applied between 10 and 120 microns thickness. The greater zinc content, results in longer corrosion resistance for the finished component.

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# Pre-treatment



Prior to painting all components pass through our three stage, on-line pre-treatment process plant.

## Automatic on-line pre-treatment

This process helps provide the product with increased shelf life, and low maintenance, plus zinc chromate protection. All components are loaded onto an automated conveyor and follow the stages listed below:

### Stage One

Each product is treated with chemical degreasing agents that remove any oils or surface contaminations.

### Stage Two

The components continue through a clean water rinse to wash and remove the chemical from the product.

### Stage Three

Optional (CF20) protection is available. This is ideal for aluminium parts that require further corrosive protection. (Up to 1000 hours salt spray test has been proven). This would depend on the environment, giving approximately 10-15 years life expectancy.

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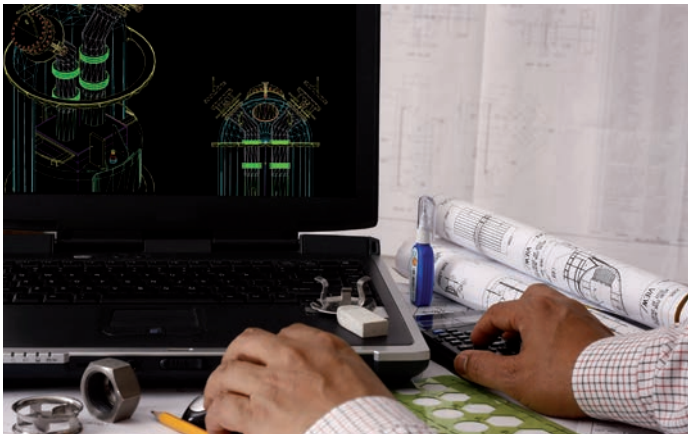
# CAD Design & Prototyping

CAD DESIGN & PROTOTYPING

We have a design team with skilled experienced engineers offering a dedicated service to our customers. We pride ourselves on providing a cost effective solution to potential new products.

We also have continued communications with our existing customers offering product enhancements, quality improvements and now shorter lead times due to our onsite consignment stocks of all raw materials (ferrous and non-ferrous).



## Our team's main aim is to:

- Produce detailed engineering drawings
- Provide accurate bills of materials
- Design and produce working prototypes
- Liaise with customers to provide initial design to eliminate delays or mistakes
- Material utilisation due to nesting of components
- Reverse engineering to reduce costs

## Software

- Radan
- Inventor 3D
- Autocad

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# Quality Policy

It is the stated quality policy of Sheet Metal Services to satisfy the requirements of our customers in every way that we can. This can only be achieved by operating a comprehensive, co-ordinated quality system which assures the quality of all products, processes and services offered by the company. This system is designed to meet the requirements of ISO 9001 and will be implemented across the whole of the company and embrace all of the activities which impact upon our customers.

The directors and managers of the company are committed to ensuring that the systems are effective in achieving quality and satisfying customers both now and in the future. To this end, we will strive to continually improve on products, processes and our quality management system. The Directors will set quality objectives which will be monitored, measured and reported upon at the Review Meetings.

The management team is committed to fostering a culture of continuous improvement. To recognise effective teamwork and individual performance. We will review our products and processes regularly. The company recognises the need for competent staff and will continue to provide training to meet the future needs.

# Fully Integrated MRP System

The software compliments our quality system, integrating all departments Sales, Quoting, CAD, Purchasing, Production, Despatch and Accounts. Complete with Bar-coding to catch up to date information on what processes are started and completed on the shop floor. The staff also benefit from Ipads/Tablets to access drawings whilst on their machines, the drawings accessed are current revisions maintained by our CAD team.

Quality accredited since June 1996 SMS have focused on supplying a quality product at an affordable cost. Benefitting from systems and procedures implemented to eradicate problems, enhancing performance and training individuals to become a recognised force in the industry it serves.

# Directions to SMS

## By Road

From Southport:

1 Follow Coastal Road southwest to **A565** Formby Bypass.
2 Remain on **A565**.
3 Continue on to **B5421** Sandringham Road.
4 Turn left onto Cambridge Road.
5 Turn right onto Sandy Road.
6 Turn left onto Sandy Lane.

From Manchester & the East:

1 Leave **M62** at junction 6 onto **M57** towards Docks/Prescot/Southport.
2 Turn left onto Dunnings Bridge Road (signs for **A5036**/Bootle).
3 Continue to follow **A5036**.
4 At roundabout, take 3rd exit onto Bridge Road.
5 Continue onto Seaforth Road.
6 Slight right into Church Road.
7 Take first right onto Crescent Road.
8 Continue onto Ewart Road.
9 Go through roundabout.
10 Turn right onto Sandy lane.


## By Public Transport

1 We are well served by rail links locally.
2 The nearest Merseyrail station is Seaforth & Litherland – which is a 10 minute walk away.
3 If you are using National Mainline Rail services, alight at Liverpool Lime Street.
4 Use Merseyrail underground to take the Northern line (Northbound Southport line).
5 Alight at Seaforth & Litherland station.


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