

# Metal Decking Specialists

**Design. Manufacture. Supply. Installation.**

**SMD**  
**structural metal decks ltd**  
Engineers in Steel Decking Systems

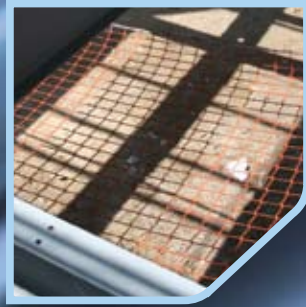
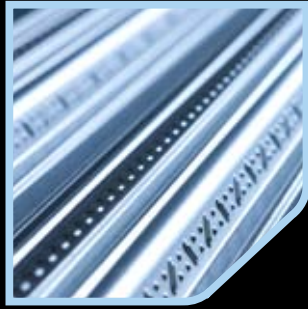
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# What we can do for you

- Supply & Fix of Composite Metal Decking
- Supply & Fix of Roof Decking
- Supply & Fix of Shear Studs
- Safety Netting
- Concreting on Composite Metal Decking
- Supply Only Metal Decking
- Supply Only of Shear Studs
- Factory Fitted Shear Studs
- Fix Only Shear Studs

Our Services





Terminal 5, Heathrow Airport

## The SMD Approach

Having been involved in large construction projects since the 1980's, we understand the importance of reliability, quality and excellent service. As well as continually investing in the technical elements of the service, SMD is also committed to its client-centric approach - which means we put the needs of our client and their project first at all times.

The SMD approach encompasses four important elements:

- Quality
- Service
- Safety
- Sustainability

**We are proud to have worked on a diverse range of challenging projects including:**

- Heathrow Terminal 5 - London
- Transport Museum - Glasgow
- Doha Airport - Qatar
- The Shard - London Bridge
- Rothschild Bank - New Court, London
- Headingley Cricket Ground - Leeds
- Aintree Racecourse - Liverpool
- BSF Schools - Nationwide
- The O2 Dome - London
- Wimbledon Centre Court - London





## SMD Solutions

### **Reliable service, excellent quality**

Annually, our experienced teams in design, manufacture and installation are responsible for the successful completion of over 1 million square metres of composite metal decking in building projects across the UK and overseas. Our solid reputation for excellent quality products and end-to-end service delivery make SMD the preferred composite metal decking supplier for many leading building contractors and steelwork fabricators.

Our clients have exacting standards, timescales and budgets to work to. By tightly controlling our labour and resources at all stages – from the manufacture of our steel profiles through to the finished deck assembly – we are able to provide unrivalled levels of flexibility and control. Investment in our own in-house design and manufacturing services; a committed, full-time, qualified and experienced team and a dedicated site manager for every job all demonstrate our client-centric approach.

### **Meeting customer needs**

Our focus on flexibility means we are able to deliver either an end-to-end service, or specific elements within the construction of composite metal decking, depending on the needs of each project.

We don't just promise reliable service and excellent quality.

## We deliver it!

# Why use SMD

Specialists in installation of composite metal decking



Watermark Place - London

## Quality

It is easy for us to feel confident in the high quality of our metal decking products, as all of our profiles are manufactured at our own, in-house production plant. The computerised production facilities ensure the manufacturing process is tightly controlled, and product output and production processes are continuously monitored via our Quality Assurance System.

The design, composition and performance of all our steel profiles and decks are continually tested and monitored in collaboration with the SCI, Southampton University and Bodycote Warrington Fire.

## Service

Delivering excellent customer service is important to us - and one reason why we enjoy such a high level of repeat business.

For SMD, 'excellent service' means being adaptable to change throughout all stages of a project as well as ensuring that sufficient resources are in place to provide flexible support. This applies to all our areas of work, not just on site but in our drawing office and manufacturing plant too.

## Sustainability

Working in environmentally responsible and sustainable ways is an important consideration for today's construction industry. Many contractors will now only choose to work with those who have an established approach to sustainability issues.

Composite metal decking flooring systems offer a number of benefits that address today's social, environmental and economic considerations for sustainable construction.

SMD is committed to working efficiently and effectively, protecting our environmental and economic resources, as well as operating in socially responsible ways. Our company operating policies and procedures adhere to the principles of BS EN ISO 14001:1996 Environmental Management Systems. As a business, we also consider our actions regarding conservation, recycling, pollution, sourcing of materials, environmental damage, disruption and nuisance. We have targets in place to assess our ongoing activities, and currently ensure the maximum percentage of any wastage both on site and within the office is recycled.

Our Commitment is reinforced by our qualification as a member of the BCSA Sustainability Charter.

Independent research shows the optimum floor slab thickness for effective thermal mass is between 75-100mm; this is readily achievable with composite slabs using decking in steel buildings.



Royal Shakespeare - Stratford Upon Avon



Cannon Place - London

## Safety

Our many years of construction experience has shown us what a hazardous industry it can be. This is why we ensure maximum effort is put into developing and maintaining our approach to site Health & Safety.

SMD recognises the importance of the health and safety of other people who may be affected by our works, as well as our own employees. On each project we liaise closely with our clients to ensure that everybody is working to provide the highest possible standards of Health & Safety throughout the works.

SMD take Health & Safety issues very seriously, and as a result, invest a significant amount of time and effort developing our working methods to ensure all work is carried out in line with our current policies, and ensure all of our people do too.

- All of SMD's site managers and on site operatives have achieved CSCS accreditation, including safety awareness training.
- FASET approved and trained safety net riggers.
- We make it easy for our staff to understand their Health & Safety obligations by investing in ongoing training as well as issuing all members of staff with our own Health & Safety information booklet.
- We retain a full time Health & Safety Consultant who monitors our practices and delivers bespoke training as required.
- We are constantly reviewing our working practices and identifying ways to eliminate risk.

As a result of all of this, SMD maintains an excellent safety record.



# Composite Decking Profiles

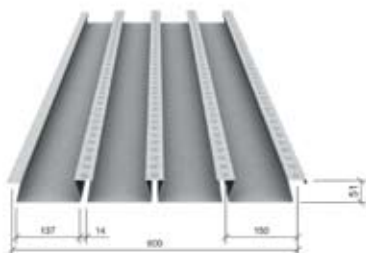
## Profiles to suit your design specification

We offer a range of profiles in gauges varying from 0.9mm to 1.2mm; all profiles are manufactured from galvanised steel strip to BS EN 10143 and BS EN 10346 with guaranteed minimum yield strengths of 350 and 450 N/mm<sup>2</sup> and a minimum coating mass of 275g/m<sup>2</sup>.

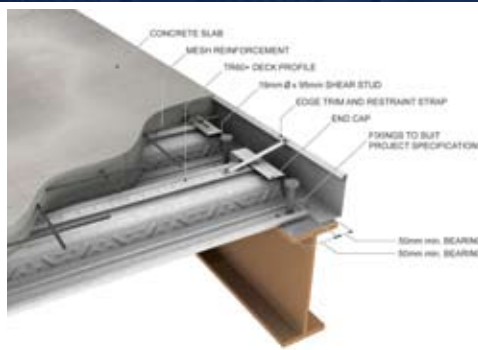
The differing advantages of each profile gives the flexibility to meet specific projects requirements.



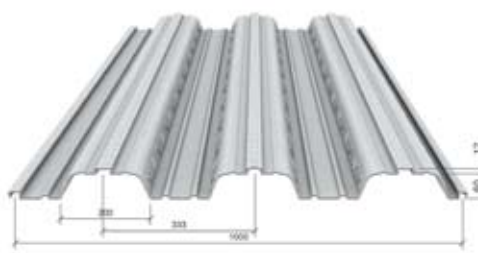
**R51**



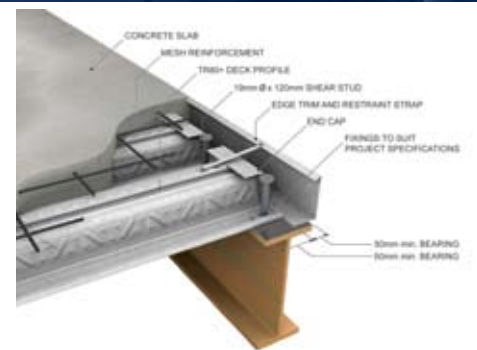
The **R51** offers the greatest slab load bearing capacity in our range. In addition, the 150mm rib spacing of this profile allows the greatest number and optimum performance of shear studs to maximise the benefits of composite beam design. Using this profile, slabs as thin as 100mm can be constructed, whilst still achieving a typical 1 hour fire rating.



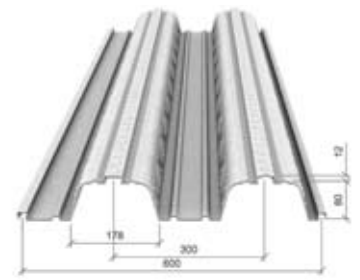
**TR60+**



The **TR60+** profile gives high span capabilities at a competitive price. Due to its 1.0m cover width, this profile can be installed quickly making it a popular choice for many design engineers. The typical 1 hour fire rating can be achieved with a 130mm slab.



**TR80+**



**TR80+** provides the greatest spanning capability in our range. The narrower cover width of this trapezoidal profile ensures large spans and hence long sheets can be installed, whilst ensuring sheet weights are within manual handling industry guidance.

The **TR80+** profile has a concrete volume up to 25% less than other profiles. The typical 1 hour fire rating can be achieved with a 140mm slab.

**All of the profiles in the SMD range are acoustically robust solutions with a fire performance of up to 4 hours.**

Further information on all of the above profiles can be found in our Technical Brochure.

Please call for your copy on +44 (0) 1202 718898 or download from [www.smdltd.co.uk](http://www.smdltd.co.uk)

# Technical Expertise



One New Change - London

## Design

SMD's experienced technical department is on hand to assist you with any questions or calculations you may require before, during and after any projects are undertaken.

Together with our technical team, our in-house detailing department of qualified designers / detailers utilise the latest Tekla Structures and Autocad software solutions to provide an efficient design service for our clients.

Working alongside the SCI, SMD have developed a fully integrated design software. Whilst giving the ability to carry out complex composite slab calculations, the software also features intuitive user interfaces, demonstrable quality assurances and integration with up to date technical excellence via links to related SCI publications.

In addition to this, the software's 'automatic update' feature gives the user added confidence by ensuring the software is in line with the latest version.

SMD also has an extensive on-going programme of research and development, to guarantee our products remain market leaders in our field.

Looking to the future, SMD's aim is to ensure we continue offering our clients high quality, excellent performing products and technical innovations.



'SMD Deck' design software

# Roofing Profile

## Structural Roof Profile Now Available

SR60 structural roof profile is available in 0.7mm, 0.9mm and 1.2mm gauges. The profile is manufactured from galvanized steel strip to BS EN 10143 and BS EN 10346 with a guaranteed minimum yield strength of 280N/mm<sup>2</sup> and a minimum coating mass of 275g/m<sup>2</sup>.

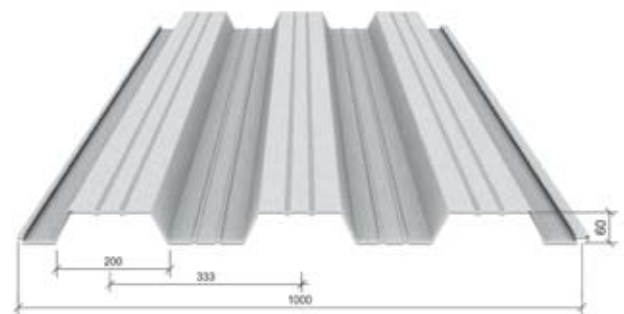
By introducing this product to our range, we can now offer our clients the full composite floor and roof decking solutions.

### Structural Roof Decking

Building upon our already successful range of trapezoidal composite deck profiles, the SR60 has been developed to complement our existing product range and services. The 333mm pitch profile offers a competitive solution with good spanning capabilities. The 1.0m cover width of the SR60 maximizes speed of installation to meet on site programme requirements.

Our skilled installation teams can provide both the netting and structural roof decking in isolation, or as part of a larger multi-storey composite decking contract.

- 60mm deep trapezoidal profile
- Enhanced speed of installation due to the 1.0m cover width
- 333mm pitch offers an economical solution for your clients
- Good spanning capabilities



**SR60**

# In-House Manufacture



## Manufacture

As one of the UK's only composite flooring specialist to both manufacture and install their own profiles, SMD are able to provide an unmatched level of flexibility and responsiveness.

The production plant, which has been recently fully refurbished, utilises modern, computerised facilities to manufacture our range of quality composite metal profiles.

The central location of our manufacturing plant in West Yorkshire is ideally placed to service the whole of the UK which helps to optimise delivery capabilities, minimise carbon omissions and manage costs.

All output from our manufacturing facility is monitored using our Quality Assurance Scheme, guaranteeing the consistently high standards we work to.

By maintaining the manufacturing element in-house, we are able to make the needs of our customers a priority. Delivery dates, late changes or an urgent requirement for additional materials are all easily accommodated. And by dealing with these common issues quickly, we are able to keep additional costs such as storage, or expensive delays to a minimum.

# Getting the Job Done



Transport Museum - Glasgow



SMD's contracts department is structured to allow effective management of nationwide contracts through a network of regional contracts managers and local site managers. This is backed up by our directly employed site operatives located throughout the UK.

## Installation

SMD's directly employed, directly controlled site operatives are the key to project success. All our operatives are fully trained and all hold the appropriate Health & Safety qualifications to operate safely and efficiently on site.

To ensure we maintain excellent service levels at all times, we also allocate a site manager to every project. Where required, the SMD site manager is a full time, on site member of the team, giving us and our clients the most effective and controlled project installation.


SMD's fleet of purpose built mobile stud welding units minimise the environmental effects of emissions and noise pollution. Modern generators specifically built to cope with the demands

of thru deck welding offer a portable, flexible solution. Where site space is limited, we can also supply static units if required.

SMD makes a continuous investment in equipment and people so that our team has the experience, training and equipment to carry out the work as required.

- Fall Arrest (Safety Netting / Airbags)
- Deck Installation
- Thru Deck Stud Welding
- Concreting

# Concrete - The Complete Solution



Over the past couple of years SMD has seen an increase in demand for a single source composite floor solution encompassing the decking, shear studs, reinforcement and concrete in one package.

With our client-centric approach, we are now able to provide the complete suspended composite slab solution through our network of nationwide concrete teams.

## Concrete

SMD can manage the entire decking, stud welding and concreting works as one complete package. We will happily advise the most efficient methodology and assist with logistics planning to ensure minimal disruption to other site works. This single source approach takes the co-ordination issues of following concrete topping trades away from the client and more importantly removes the client's commercial risk of managing the interface.

Our site managers are experienced in managing the concrete installation and have all received bespoke in-house training, ensuring the end result is both compliant and to the high quality that the client expects.

We have successfully completed numerous projects. Some recent examples are listed below:

- Police cells, Bournemouth
- Distribution centre, Preston
- Sittingbourne data centre, Kent
- Waste recycling centre, Newcastle
- BSF School, Whitstable

# Fibre Concrete

The increasing popularity of fibre reinforced concrete as a replacement for traditional mesh reinforcement is a welcome technological development. The reduction in handling, storage and safety issues it facilitates makes it a positive choice for many contractors. And the fact that using fibre concrete removes a stage in the installation process (thus reducing the overall time required to construct a composite metal deck slab) also adds to the appeal of this new solution.

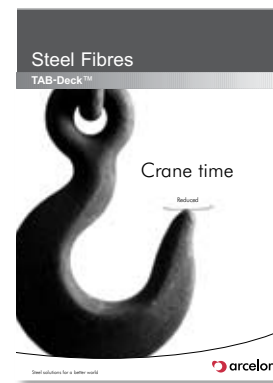
SMD have undertaken extensive testing using the TAB-Deck™ system with our profiles, achieving excellent results. This fibre solution is now available to our clients.

## Benefits

- No site storage required for bundles of mesh
- Improved safety due to less handling and reduced trip hazards
- Saves time by reducing the number of processes required to form the composite slab
- Saves money due to reduced fixing and crane time, as well as faster overall installation time
- The addition of steel fibres turns brittle concrete into a more ductile material with greater load carrying capacity
- The three dimensional nature of the steel fibre also provides excellent crack control



For further technical and cost enquiries regarding the Tab-Deck™ steel fibre system please contact ArcelorMittal Wire Solutions technical department on 0114-2392601.



  
**ArcelorMittal** SMD fibre supplier (TAB-Deck)

# Benefits



Wimbledon Centre Court - London

## Benefits of Using Composite Metal Decking

- Rapid speed of construction, reducing overall project time
- Provides the tensile reinforcement requirements of the slab
- Composite Construction reduces steelwork frame weight
- Reduced foundation costs, due to reduced loading
- Integral ceiling and service fixing system
- The decking acts as permanent shuttering
- Provides a cover for following trades
- When fixed the decking provides a safe working platform
- Minimal site storage requirements
- Easily installed into complex designs, with minimal wastage
- Can achieve up to 4hr fire rating for the slab

## Contact us

For more information about SMD products and services, please contact our technical sales team on:

**+44 (0) 1202 718898 or visit [www.smdltd.co.uk](http://www.smdltd.co.uk)**

# **SMD**

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Engineers in Steel Decking Systems

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