



**BRITISH  
STEEL**



# Forklift Profiles

Mast sections and fork arm flats for  
material handling equipment

**BUILDING STRONGER FUTURES**

## Introducing British Steel

British Steel is one of the leading steel manufacturers in Europe, producing around 3 million tonnes of quality steel products every year. Our Special Profiles mill in the north east of England produces unique steel solutions for unique applications across the world.

We are one of the world's foremost suppliers of steel profiles to the forklift truck industry with over 40 years' experience in the business. Innovation and continuous improvement are at the heart of our performance culture.

### Investing in the future of the forklift industry

Investing in our processes is crucial for remaining at the forefront of innovation, performance and value. A £2m investment in surface quality enhancements has enabled us to provide our customers with premium products with the highest quality finish.

Our award-winning descaling system's unique design has increased our descaling effectiveness by 300% and gained widespread recognition from customers and industry experts alike. The process has most recently been awarded 4 patents.

### Special Profiles for material handling equipment

We produce a wide range of forklift mast, fork arm flat and carriage bar profiles for all types of material handling equipment – from the smallest warehouse truck to the largest container handler. By working in partnership with our customers, we find the best solutions to meet your needs from section design and enhancement to tailored stock and just-in-time delivery.



## Working with you to achieve value

Our Special Profiles team offers you quality, service and support from design to delivery.

### Profiles for forklift truck components

Our fork arm flats provide the strength, hardness and durability essential in the manufacture of forklift arms. We understand the stresses and strains involved in this safety-critical application and with a recently extended range of sizes, our fork flats are up to the challenge.

Our mast profiles are designed to withstand the rigours of everyday use in the most demanding of materials handling environments. We offer the ideal hot-rolled mast shape for each vehicle type, ensuring quality and cost benefits for you.

### The next generation of masts

Our expert Technical and Roll Design teams are on hand to work with you from the very earliest stages on exclusive designs and product enhancement in order to develop the optimum profile shape. We can support you in creating a bespoke product, unique to you and your vehicles, fit to face the challenges of tomorrow's marketplace.

### Making life easier for you

We're continually striving to provide a unique service to our customers and can supply 'ready-to-use' components to make fabrication and assembly easier. Our services include:

- Stocking and just-in-time delivery
- Cold sawing to finished mast lengths
- Shot blasting

### Integrated supply route

Our range of low-carbon, high-strength, low-alloy steels are ideal for mast manufacture, incorporating fracture toughness properties sufficient to cope with the twisting and bending stresses experienced during materials handling. Full control over our own steelmaking enables us to tailor our chemistries to fit customer requirements exactly. Specific grades can be developed in conjunction with you to suit your bespoke requirements.

### Global support

As a global supplier to the forklift truck industry we are proud of our vast experience in exporting profiles around the world. Our well-established logistics routes, coupled with our international sales network, mean you can rely on us to deliver – wherever you are.

### Investing in quality

We're focused on achieving exceptional surface quality. Our new state-of-the-art high-pressure descaling system guarantees products that satisfy the ever-increasing demands of today's marketplace. Ongoing investment in our processes is delivering continuous improvement, ensuring superb shape and dimensional tolerances.

### Getting the right profile for the job

We offer a wide range of fork arm flats and have the capability to supply a comprehensive choice of mast profiles to suit the broadest array of vehicles. Please contact us to discuss your specific requirements.

### A long-term relationship

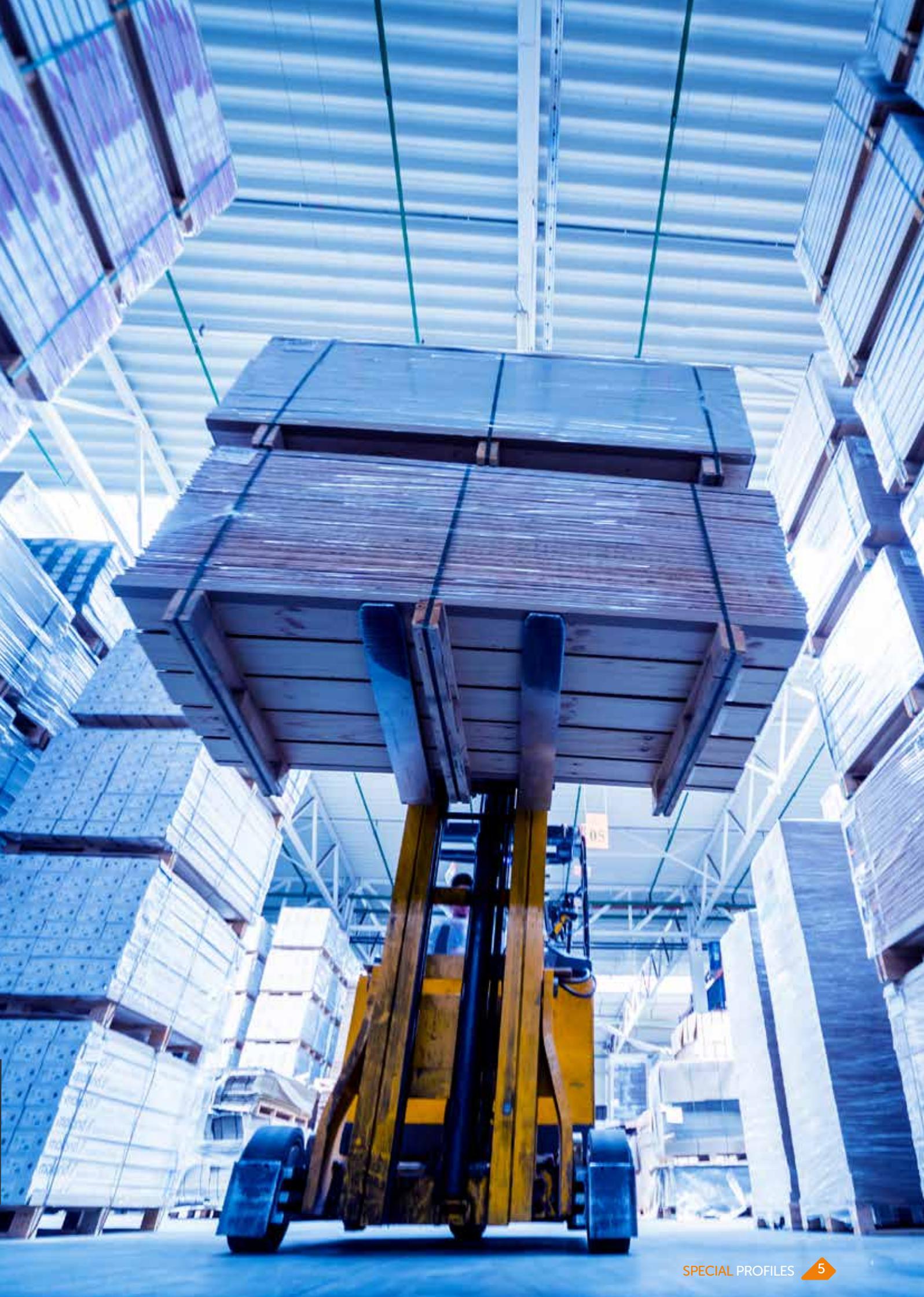
Our approach is to build long-term relationships. We recognise the mutual benefits that can be achieved by working closely together:

- Joint research and development
- Security and reliability of supply
- Optimisation of logistics to suit both parties

### Technical excellence

We offer extensive technical support on issues such as weldability, fracture toughness and fatigue to ensure the optimum steel grade is chosen for each truck application.

*We're focused on achieving exceptional surface quality to satisfy the ever-increasing demands of today's marketplace.*



## Forklift mast profiles

We recognise that mast assembly is crucial to overall truck performance, and work closely with our customers to develop the optimum mast shape and steel properties for every truck application.

### World-beating product capability

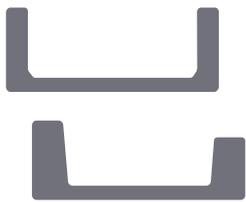
Our range of low-carbon, high-strength, low-alloy steels is ideal for mast manufacture.

Ongoing investment and continuous improvement in our processes ensure excellent shape, dimensional tolerances and surface quality.

The open roll profile sizes below are indicative of the wide range that we can produce (subject to tooling availability).

### Channels

Size (mm)	Kg/m
121 x 41	20.9
135 x 53	28.6
145 x 48**	27.1
157 x 61	35.9
166 x 65	19.8
175 x 66	42.9
201 x 71	52.3
252 x 90	78.5
267 x 95*	92.3



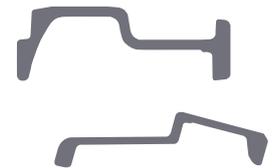
### Beams

Size (mm)	Kg/m
98 x 62	19.4
101 x 60**	17.8
114 x 66	25.3
130 x 81	34.1
140 x 70**	30.9
140 x 76*	33.1
149 x 67	26.7
152 x 83	40.5
175 x 76**	42.0
175 x 90	51.4
216 x 89	59.1
229 x 127*	87.2



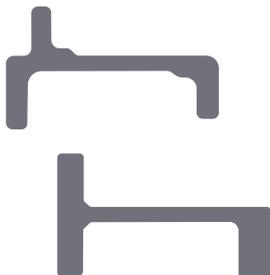
### Special channels

Size (mm)	Kg/m
145 x 54 x 48	26.7
163 x 61 x 48	29.0
185 x 67 x 54	39.2
226 x 73 x 54	50.6



### J & Offset J

Size (mm)	Kg/m
103 x 63 x 38	17.3
121 x 68 x 41	25.2
135 x 90 x 53	34.9
157 x 105 x 61	43.9



\*Readily available from our Skinningrove site  
\*\*USA standard



## Fork arm flats

Our profiles for the manufacture of fork arms are available in a wide range of sizes to support the optimum lift capacity for your requirements.

### Boron steel grades

Our fork arm flats are boron-treated, for increased steel strength.

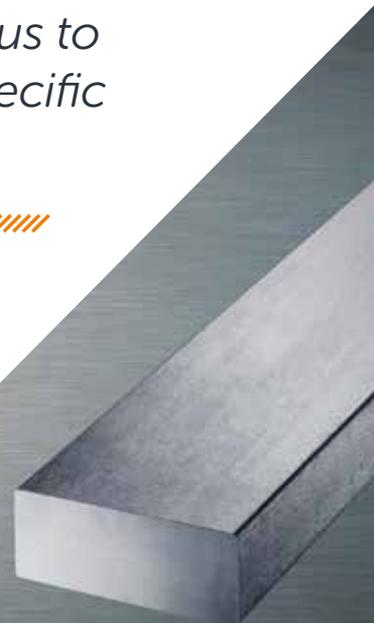
The Jominy hardenability ensures that after quenching and tempering, consistent mechanical properties can be achieved across the full range of thicknesses.

Other steel specifications may be available on request.

### Fork arm flats dimensional capability

Thickness (mm)	Width (mm)					
	100	122	150	180	200	250
35	■	■				
40	■	■	■			
45	■	■	■	■	■	
50	■	■	■	■	■	
55	■	■	■	■	■	
60	■	■	■	■	■	
65			■	■	■	
70			■	■	■	
75			■	■	■	■
80				■	■	■
85				■	■	■
90				■	■	■
95					■	■
100					■	■
105						■
110						■
115						■
120						■
125						■
130						■
135						■
140						■
145						■
150						■

*Please contact us to discuss your specific requirements*





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