

The advertisement features a dark blue background with glowing light trails and various 3D rendered metal components. In the center, a large cylindrical tube is shown with intricate laser-etched floral patterns on its surface. Surrounding it are several other metal parts, including rectangular profiles, a small pipe, and a large flared tube. The overall aesthetic is high-tech and industrial.

Orbit
360
TUBE LASER
TECHNOLOGY

 **ParkerSteel**

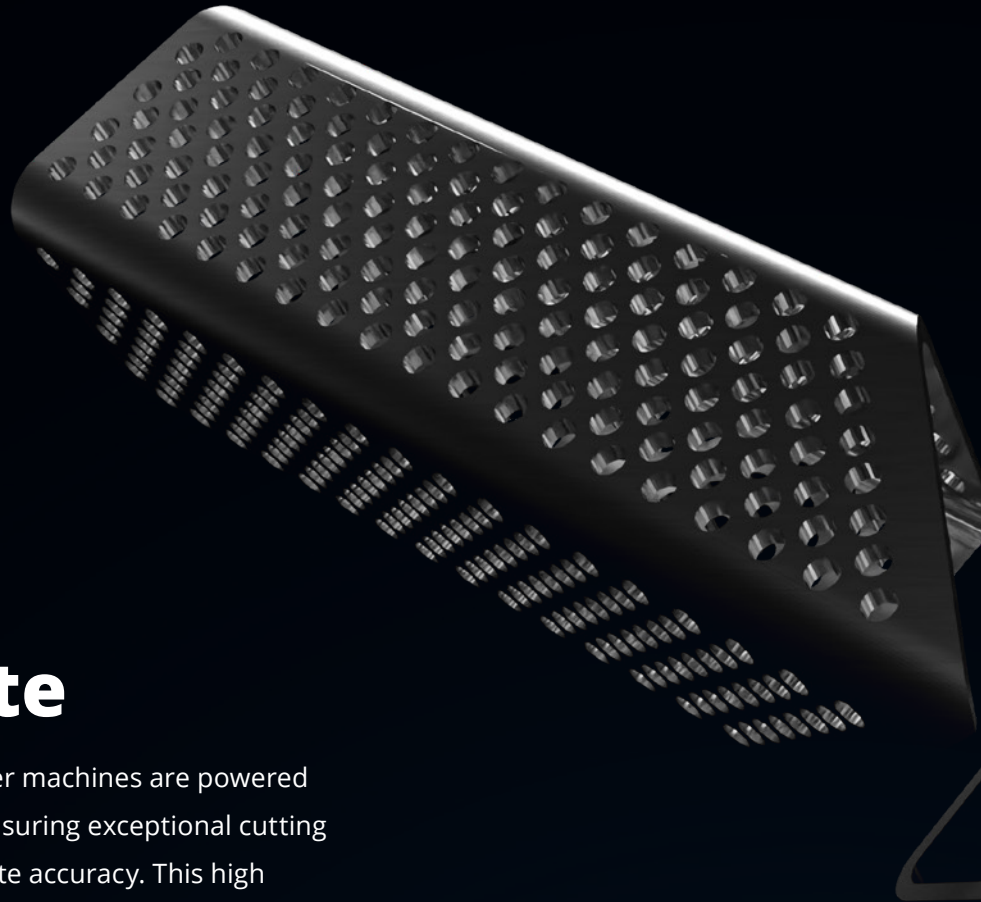
ADD A NEW DIMENSION TO YOUR STEEL

Your **Vision**, Executed with **Speed** and **Precision**

Whether it's a simple cut-to-length job or a one-of-a-kind design, ParkerSteel's range of tube laser machines provide a superior solution. With full CAD/CAM integration and precision technology, tube laser cutting is fast, accurate and repeatable, delivering high-quality, professional results for every application.

Efficient

Fitted with automatic tube bundle loaders, our machines can process bulk orders with unprecedented speed. Rather than manually loading each piece onto the machine, an entire bundle of material is loaded at once, then automatically separated and fed through for further processing.



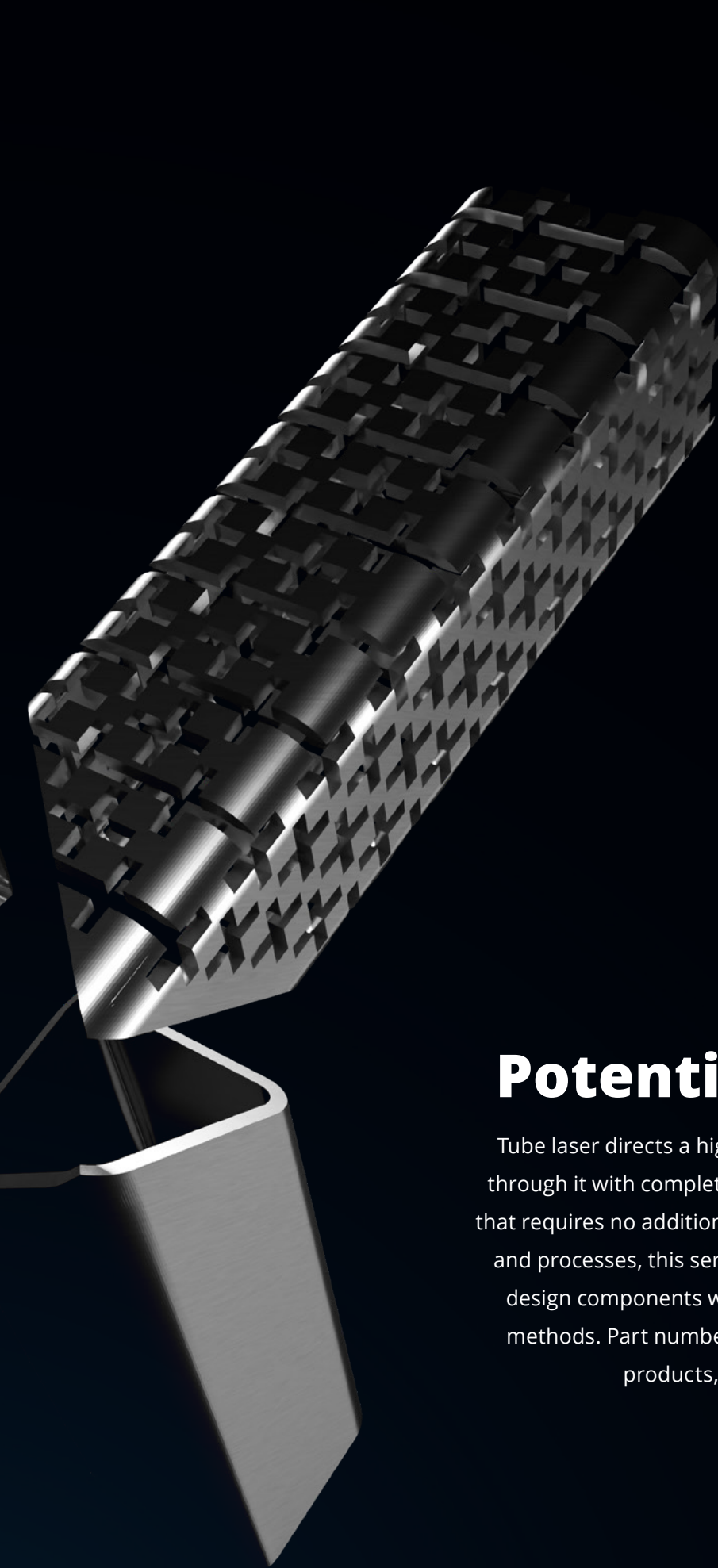
Accurate

ParkerSteel's tube laser machines are powered by CNC technology, ensuring exceptional cutting tolerances and absolute accuracy. This high level of precision is ideal for creating consistent, repeatable cuts or processing intricate details to a professional standard.



Versatile

While tube laser excels at complex designs, it is also a preferred cutting method for simpler jobs, providing a fast and efficient alternative to saw and drill. It combines multiple manual operations, such as sawing, drilling, chamfering, mitre cutting and more, into a single, effective service, dramatically reducing your fabrication time and costs. These processes can be quickly replicated due to the automatic bundle loading feature, further enhancing its speed and productivity.



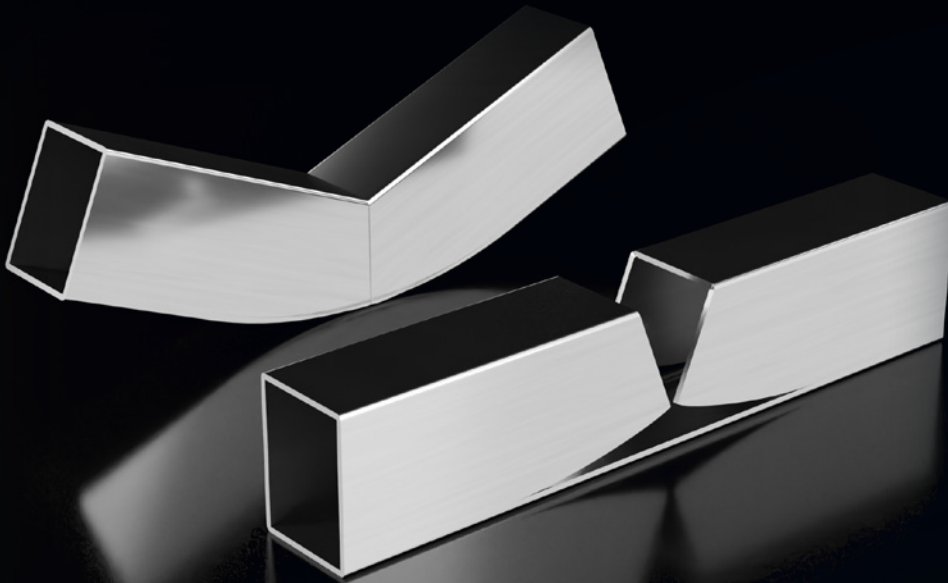
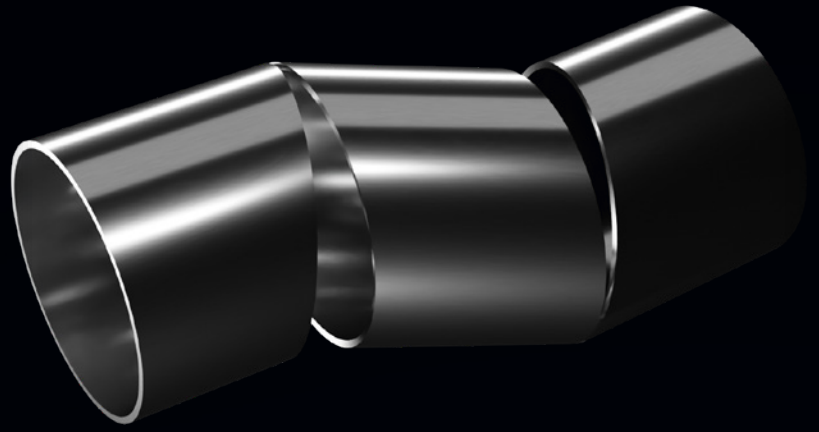
**Precision.
Quality. Speed.**
***Think three-
dimensional.***

Unlock the Full Potential of Your Steel

Tube laser directs a high-powered laser beam at the material, cutting through it with complete precision and leaving behind a smooth finish that requires no additional processing. With a vast number of cut types and processes, this service allows complete flexibility and freedom to design components without the constraints of traditional machining methods. Part numbers and location marks can also be etched onto products, facilitating the assembly stage of your project.

Circular Tube V-Notch

Circular tubes can be V-notch cut and folded at predetermined angles to create a curved geometrical shape from a single piece of material.

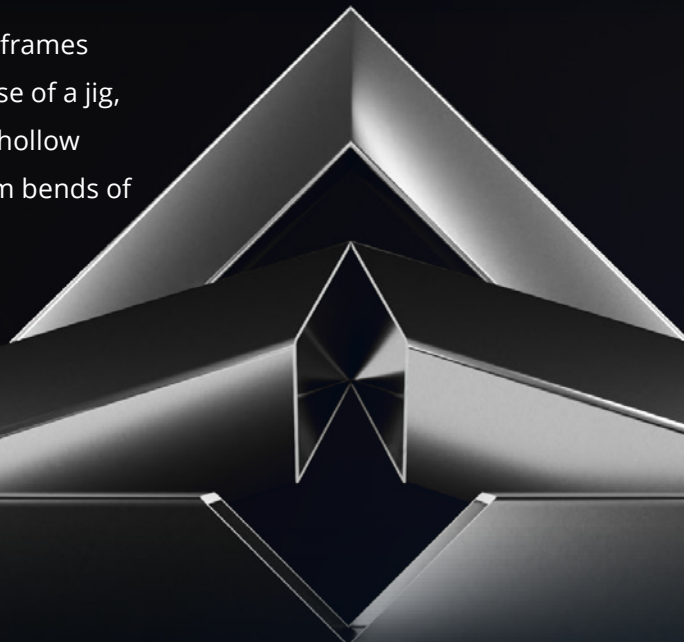


Curved Notch

A radiused corner is created on square or rectangular hollow section, resulting in an aesthetic, curved component which is ideal for furniture or rack systems.

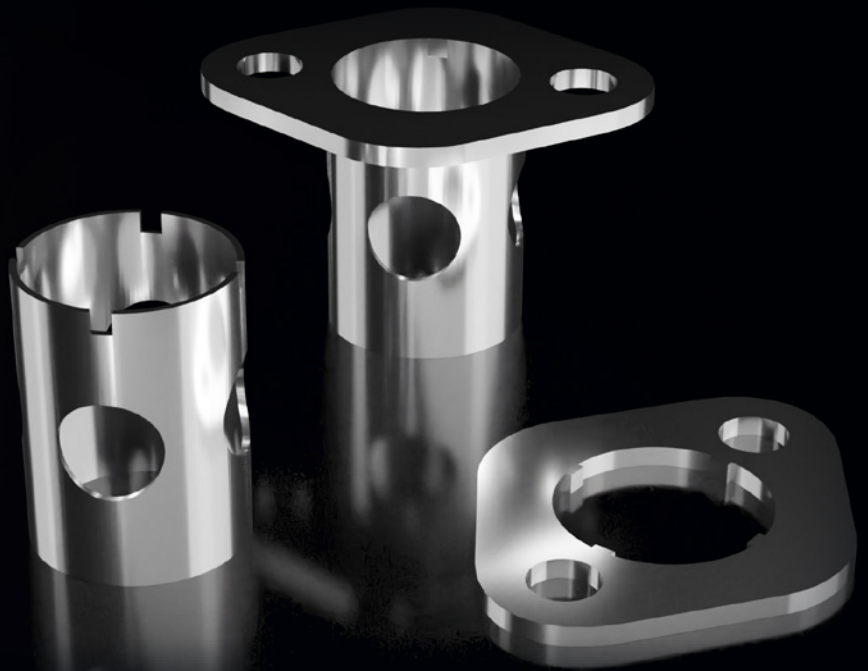
V-Notch

Often used to create table frames for furniture without the use of a jig, V-notch cutting allows the hollow section to be folded to form bends of varying degrees.



Slotted Plate Connections

Tubes and hollow sections can be slotted into plates to form highly accurate, self-locating connections with minimal assembly time required.



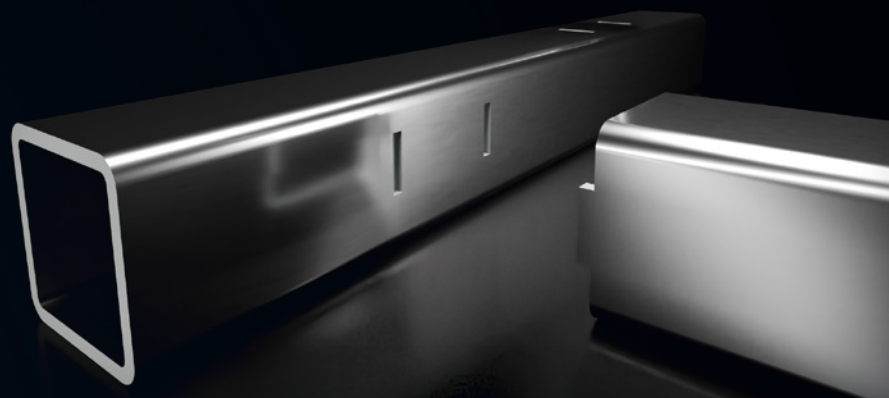
Extended Connections

New joint connections can be created to speed up assembly with tubes that can be tagged and slotted into square or rectangular hollow section with absolute precision.



Connectors

Slots and tags are cut into corresponding hollow sections, allowing effortless, self-jigging assembly for furniture or frames that simply requires welding.



A 3D rendering of several metal tubes with saddle cuts. The tubes are arranged in a way that shows how they fit together. The saddle cuts are precisely machined, allowing the tubes to be joined without the need for welding. The lighting is dramatic, highlighting the metallic surfaces and the precision of the cuts.

Intersections

Corresponding sections of material are removed from hollow sections, resulting in a seamless and exceptionally accurate fit that eliminates the need for a jig or manual measurements.

Saddle Cut

Tube laser executes consistently perfect scalloped ends for saddle cut hollow sections, reducing welding and assembly times due to the minimal gaps between the tubes. Additionally, corresponding tubes can be etched with location marks to improve the ease and accuracy of fabrication.

Cross Intersections

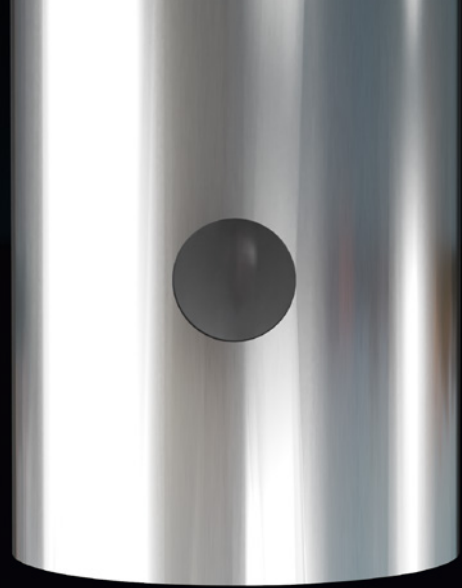
This form of intersection is often used for furniture applications, such as tables, due to its complete precision which ensures that cross beams have an exact 90-degree placement.

What Will You **Create** with Your Steel?



Why Tube Laser?

- Accuracy and repeatability
- Innovative solutions for any application
- Consistently high performance
- Reduced direct labour costs
- Minimal part cycle times
- Significantly faster prototyping
- Creative design freedom



XA Holes VS XY Holes

The tube rotates around the A axis (360° rotation) and back and forth along the X axis (length), keeping the laser head perpendicular to the material.



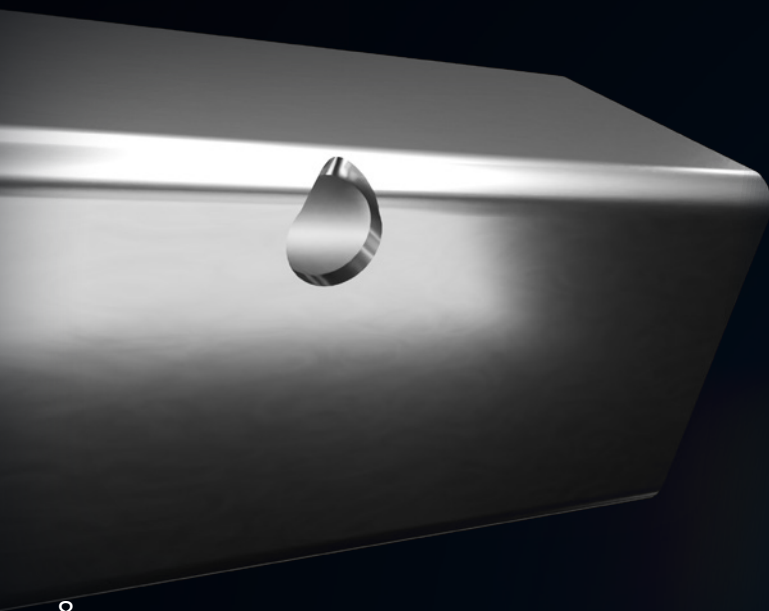
The laser head traverses the Y axis (width), whilst the tube moves back and forth on the X axis (length) to form precise cut outs.

AT A GLANCE

As the default method of hole cutting, XA holes are processed with speed and efficiency, resulting in a tapered finish that is ideal for welding.

AT A GLANCE

XY holes are true vertical, drill-style holes. While the process is lengthier, its absolute precision is required for certain applications, particularly for tapped/ threaded holes.

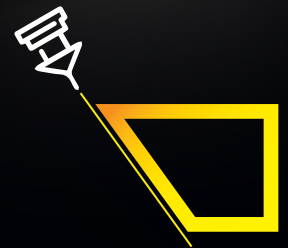


Radius Holes

Holes cut near the radius of a box section will be XA by default and have a 'tear-drop' shape due to the curved edge of the material.



Snub Nose VS Saw Cut



2D MITRE / STANDARD LASER MITRE

The cutting head of the laser aligns perpendicularly to the material surface, creating a 'snub nose' appearance with flat edges as opposed to a finely tapered point.

3D MITRE / TRUE MITRE

The tilting motion of the tube laser cutting head delivers a more intricate cut than a 2D mitre, resulting in a fine, precise point on the material.

AT A GLANCE

2D cutting offers a fast and cost-effective tube laser solution but is not suitable for every application due to the flattened edges it produces.

AT A GLANCE

3D mitre cutting produces a sharper finish but demands more time as the laser navigates the varying thicknesses of the material.

More than Tubes...

Despite their name, our tube lasers can process an array of products, including:

- Angle Section
- Channel Sections
- Flat Bar
- Hollow Section

Get in touch with us to discuss how we can streamline your next project with our tube laser services!



More Machines, **Faster** Lead Times

With six cutting-edge BLM Adige and Trumpf tube laser machines across ParkerSteel's Canterbury and Dudley depots, we have significantly increased our capacity for tube laser orders. This investment translates into shorter lead times for our customers, ensuring that you get the steel you need when you need it.

3D Tech

The 3D cutting technology and exceptional tolerances of tube laser machines unlock an astonishing range of construction possibilities that cannot be achieved by hand cutting or alternative machines.

SUPPORTED FILE FORMATS - 2D

🕒 PDF - preferred 🕒 DXF 🕒 DWG

SUPPORTED FILE FORMATS - 3D

🕒 STEP - preferred 🕒 IGES 🕒 X_T 🕒 IFC

For faster quotes and processing, send both 2D and 3D file formats to your account manager or sales@parkersteel.co.uk

Technical Specification

	Mild Steel		Stainless Steel		Aluminium	
	Min	Max	Min	Max	Min	Max
Length	5mm	8,000mm	5mm	8,000mm	5mm	8,000mm
Weight	-	35kg/m	-	35kg/m	-	35kg/m
Wall Thickness	-	12mm	-	6mm	-	4mm
Tolerance	-	+/-0.3mm	-	+/-0.3mm	-	+/-0.3mm

TUBE PRODUCTS

Mild Steel / Stainless Steel / Aluminium

	Min	Max
○ Circular Diameter	12mm	220mm
□ Square Section	12mm	200mm
▭ Rectangular Section	10 x 20mm	200 x 150mm

STRUCTURAL SECTION PRODUCTS

Mild Steel

	Min	Max
└ Parallel Flange Channel	30mm	200mm

ANGLE PRODUCTS

Mild Steel

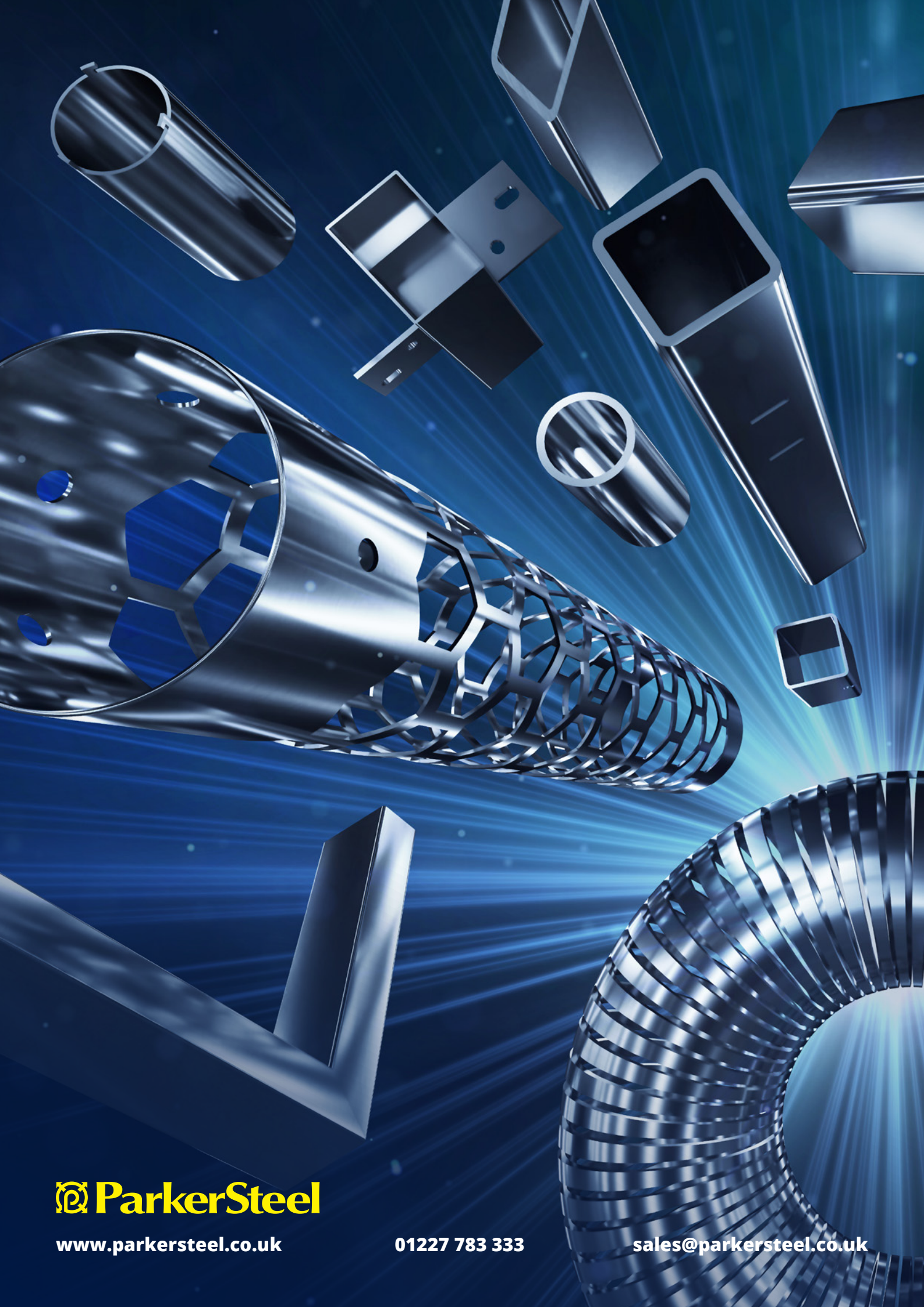
	Min	Max
└ Equal	12mm	200mm
└ Unequal	30 x 20mm	200 x 100mm

FLAT PRODUCTS

Mild Steel

	Min	Max
— Flat Bar	40 x 5mm	200 x 12mm





 **ParkerSteel**

www.parkersteel.co.uk

01227 783 333

sales@parkersteel.co.uk