

JC

JC METALWORKS



JC METALWORKS: YOUR ONE-STOP SHOP FOR FABRICATION & WELDING EXCELLENCE

JC Metalworks is a reliable partner that offers high-quality fabrication and welding services in the United Kingdom. With more than 30 years of experience, we are proud to serve a diverse range of industries. Our manufacturing capabilities include creating range from small intricate components right through to HD metal enclosures.



UNMATCHED

WELDING CAPACITY WITH

14 DEDICATED BAYS

We understand the importance of having ample workspace to accommodate various welding projects simultaneously. Our fabrication department features 14 separate welding bays, each equipped with state-of-the-art welding equipment, lifting equipment and comprehensive exhaust systems. This extensive workshop space allows us to handle projects of all sizes and complexities, ensuring timely completion without compromising quality.

OUR FABRICATION AND WELDING SERVICES INCLUDE:



MILD STEEL FABRICATION

We have a team of experienced welders who draw upon their extensive expertise and showcase exemplary capabilities in mild steel welding and fabrication. They employ precise welding techniques to ensure optimal strength and structural integrity, whether for robust structural components or intricate mild steel fabrication.

STAINLESS STEEL FABRICATION

Welding stainless steel is a delicate process that requires a specialised approach due to its unique properties. Our welders have a deep understanding of the different grades of stainless steel, which helps them execute the welding process with precision. Our welders' knowledge



goes beyond traditional welding techniques and includes an acute awareness of factors such as heat input, alloy composition, and potential sensitisation issues. They navigate these complexities with ease, using advanced welding equipment to achieve superior results. They pay close attention to detail when preparing joints, selecting appropriate filler materials, managing heat control, and producing welds that are strong and resistant to corrosion.





ALUMINIUM FABRICATION

After the welding process, meticulous finishing techniques are used to ensure a flawless and aesthetically pleasing final product that meets the highest standards of craftsmanship. This includes precise dressing of welds and mirror polishing.

Working with aluminium requires a unique set of skills due to its lightweight nature and specific properties. Our welders demonstrate an in-depth understanding of aluminium alloys and utilise precise welding techniques tailored to the material's characteristics. They have expertise in heat management, filler material selection, and joint preparation. Utilising state-of-the-art equipment and innovative approaches, we produce welds with superior strength and integrity. After welding, our finishers achieve meticulous finishing, incorporating various techniques for dressing welds and achieving a mirror-like polish. This enhances the aesthetic appeal of the final product.

TYPES OF WELDING SERVICES AND METHODS



TIG WELDING:

At JC Metalworks, we specialise in TIG (Tungsten Inert Gas) welding, a welding technique known for its precision and versatility. Our skilled welders use this method to create high-quality, clean, and aesthetically pleasing welds on a variety of materials, including aluminium, stainless steel, mild steel and more. TIG welding allows for precise control over the heat input, resulting in stronger welds and minimal distortion. Whether you require intricate designs or robust structural components, our TIG welding services guarantee exceptional results.

MIG WELDING:

MIG (Metal Inert Gas) welding is another core competency at JC Metalworks. MIG welding is well-suited for high-volume production and offers excellent speed and efficiency. Our experienced MIG welders ensure the integrity of your project by delivering consistent and reliable welds. From automotive components to industrial assemblies, our MIG welding services are tailored to meet the demands of diverse applications.





SPOT WELDING:

When it comes to fast and efficient metal joining for sheet metal and lightweight assemblies, our spot welding services stand out. This method is ideal for projects requiring rapid production and minimal heat-affected zones. At JC Metalworks, spot welding equipment ensures precise and consistent results, making it an excellent choice for applications such as scientific manufacturing, electronics, and beyond.

ROBOTIC WELDING:

Our state-of-the-art robotic welding systems guarantee precision, efficiency, and unmatched consistency in welds. Ideal for high-volume production, our robotic systems bring together speed and quality, ensuring uniformity and minimising errors.





EXCEPTIONAL WELDING RESULTS

When you entrust your metal fabrication project to JC Metalworks, you can rest assured that your components will be crafted with precision, expertise, and unwavering attention to detail.

- **Consistent and Strong Welds:** We consistently produce strong, durable welds that can withstand rigorous testing and real-world applications.
- **Intricate Designs to Large-Scale Fabrication:** Our expertise extends to both intricate designs and large-scale fabrication projects.
- **Meeting Demanding Standards:** We ensure that your project meets all specifications.

Beyond welding, we also provide a comprehensive range of finishing solutions that enhance both the aesthetics and functionality of your metal components. Our liners perform meticulous buffing, finishing, and mirror polishing processes to ensure a flawless and refined surface finish. Whether you desire a smooth and uniform texture, our powder coat services complete your project with precision-crafted metalwork that exceeds expectations.

FABRICATION AND WELDING SPECIFICATION TABLES

MACHINE	MIGATRONIC UR10-PI350 (TIG)
TECHNICAL SPECIFICATION	
Reach	1300 mm
Repeatability	±0.1 mm
Wire Thickness	1mm
Programming	Offline via Pendant or Smart tool
Torch Time	90% / Hour
Table size	2000mm x 1000mm
Extraction	Hood 3000x1500

MACHINE	MIGATRONIC UR10 Sigma Select (MIG PULSE)
TECHNICAL SPECIFICATION	
Reach	1300 mm
Repeatability	±0.1 mm
Wire Thickness	1mm
Programming	Offline via Pendant or Smart tool
Torch Time	90% / Hour
Table size	2400mm x 1200mm
Extraction	Hood 3000x1500

MACHINE	MIG (x11 Bays)	
TECHNICAL SPECIFICATION	Min. Thickness	Length
Mild Steel	0.7mm	Any (Longer weld, more distortion)
Stainless Steel	0.7mm	Any (Longer weld, more distortion)
Galvanised	0.7mm	Any (Longer weld, more distortion)
Zintec	0.7mm	Any (Longer weld, more distortion)
Features	All Welding bays have dedicated extraction systems	

MACHINE	TIG (x3 Bays)	
TECHNICAL SPECIFICATION	Min. Thickness	Length
Mild Steel	0.7mm	Any (Longer weld, more distortion)
Stainless Steel	0.7mm	Any (Longer weld, more distortion)
Galvanised	0.7mm	Any (Longer weld, more distortion)
Zintec	0.7mm	Any (Longer weld, more distortion)
Aluminium	1.2mm	Any (Longer weld, more distortion)
Features	All Welding bays have dedicated extraction systems	

MACHINE		SPOT	
TECHNICAL SPECIFICATION		Thickness	Length
Mild Steel		0.7mm	Any
Stainless Steel		0.7mm	Any
Galvanised		0.7mm	Any
Zintec		0.7mm	Any
Features	All Welding bays have dedicated extraction systems		

Linishing Room	
TECHNICAL SPECIFICATION	
Linishing	Dedicated 40sqm linishing area contained in a pressurised room to ensure dust is contained and safely extracted form the building.

PROCESS	
TECHNICAL SPECIFICATION	
Linishing	Most basic process to remove weld from a surface
Polishing	MS, SS & ALLY to restore various surface finishes
Electrolytic weld cleaning	Used exclusively on SS
Weld Fasteners	Majority of materials

Choose JC Metalworks for welding solutions that exceed expectations. Contact us today to discuss your project requirements and experience the difference of working with a trusted leader in metal fabrication.

Call us at 01509 233280 or email us at sales@jcmetalworks.co.uk and we'll be happy to assist you.

