



'Construction Robotics for Offsite Manufacturing'



Midland Steel
Reinforcement Supplies



Our Company

FOUNDED IN 1999

Mountmellick (HQ) | London | Bishop
Auckland | Motherwell

REBAR PREFABRICATION & BIM

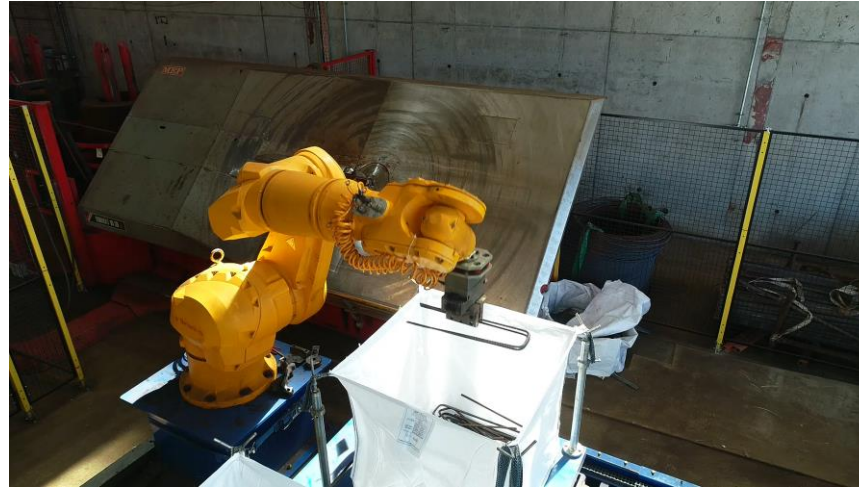
Services include; prefabrication,
3D modelling/BIM, cut & bent, mesh,
couplers & rebar accessories.

250,000 TONNE CAPACITY

Large capacity to supply the Irish and UK
market strategically located in these
regions.

Our Services

- Fabrication – C & B
- Prefabrication
- Rebar detailing
- BIM Level 2
- Offsite rebar solutions using our concrete experience



Manually operated
stirrup bending machine

Project
Example



Robotic operated stirrup bending machine

Project
Example

Safety

Eliminates risk of hand related injuries & muscles strains.

Production

Optimised for efficiency with production planned and controlled remotely which can operate 24/7.

Operator

Upskilled operator with a new job title.

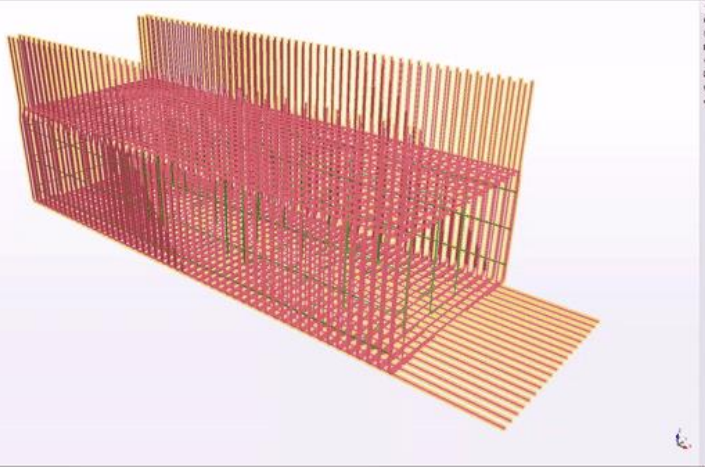
Project Example



Future of rebar

BIM

Detailing modular solutions that can be sent directly to automated manufacturing machines.



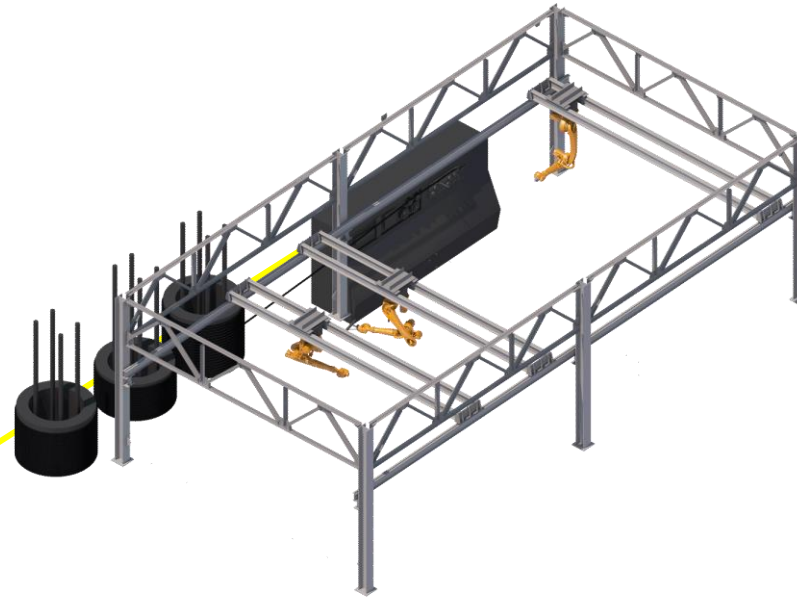
Modular Installations

Reducing both time and labour onsite.



Robotic Manufacturing

Automated processes that are user friendly and efficient.

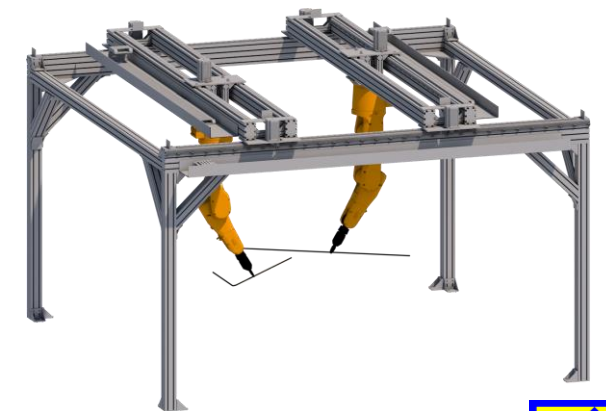
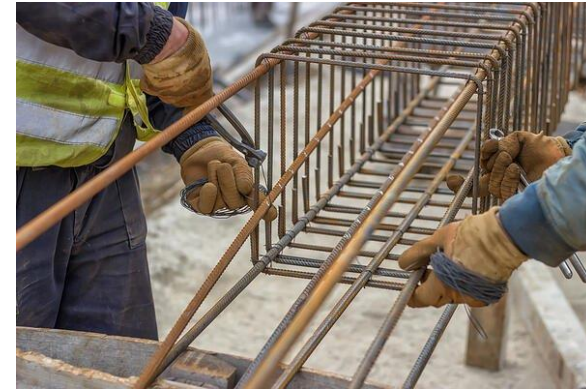


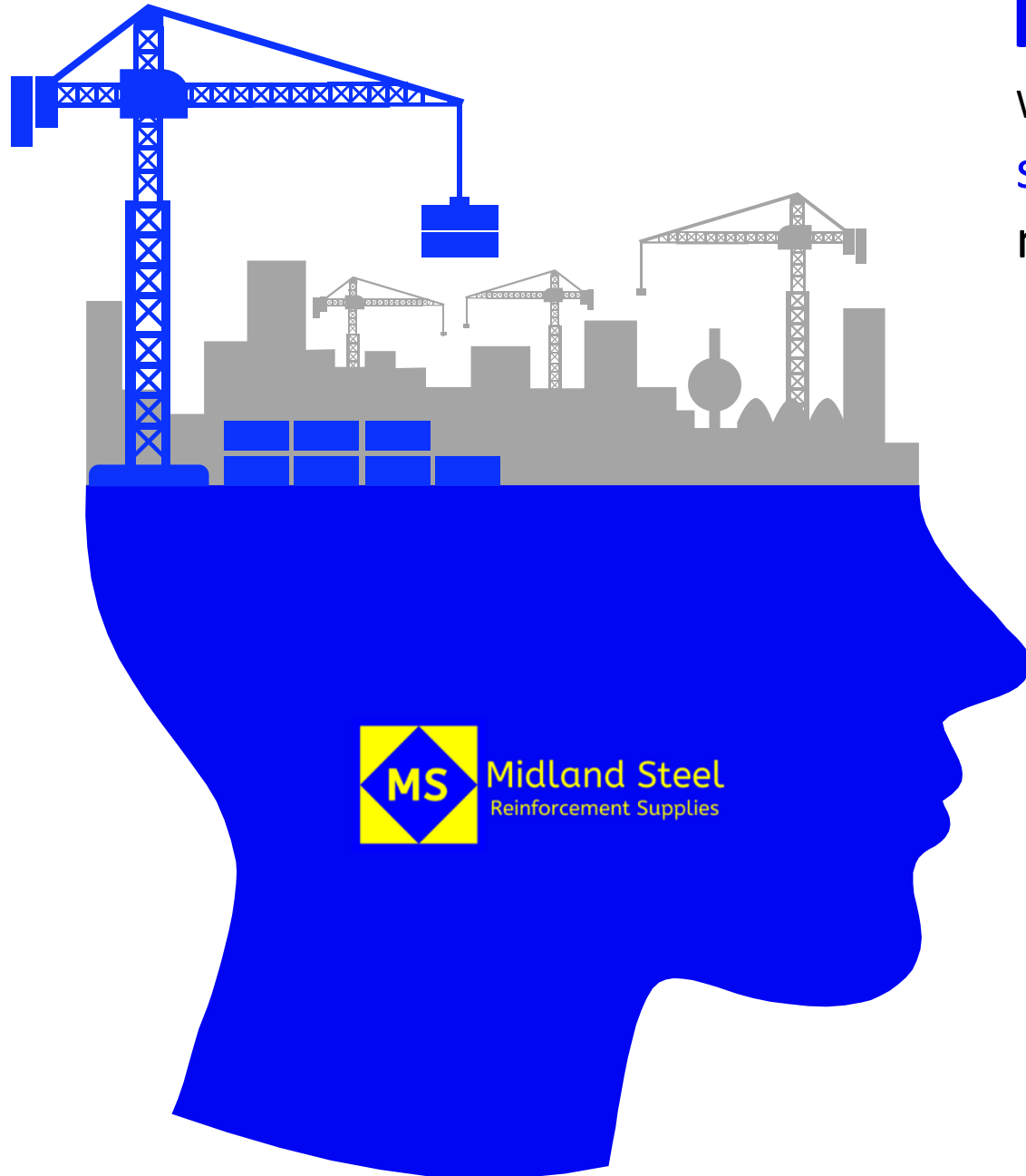
Why the construction manufacturing sector needs robotics

- **Exhausting** working tasks – tying and welding rebar.
- The **average age** of operators is steadily **increasing**.
- Welding is a boring, hot and very **unhealthy job** – there are very few young people who choose to be educated as welders.
- Welders are sometimes the **limiting factor** in productions.

Picture robots doing this job!!!

Operated by a welder, which now has a new and stimulating job title as **robot operator**





Future Talent

want to work with digital and automated solutions and it is up to the supply chain to make these jobs available.

The construction industry won't change by itself. But it can be influenced by the supply chain that attracts new talent to do things differently and offer modern methods of construction all while keeping employees interested and engaged in their work

Offsite Manufacturing Robotics Benefits



Production efficiency

Because robots increase output and thereby competitiveness, the company will over time **employ more staff not less**

Improves working environment & safety

Employee welfare can be significantly improved through the **elimination of welding fumes**, using **robotics** to work with heavy duty machinery and **reducing manual labour/handling**

Give operators rewarding jobs

Upskilling staff to work with digital and automated solution, solutions they have **an interest in working with**

Cost Saving

Automation will ultimately improve a company's **profitability**



Technology Trend Series

Robotics in Construction

Thank you for listening
Tony Woods – Managing director

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