



architectural  
cladding products ltd

## Excellence in **Architectural GRC Design & Manufacture**



manufacturing  
process



An insight into the  
**Grade 18 GRC**  
Manufacturing Process



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## Spen Valley Works Manufacturing Facility

- ▶ 20,000m<sup>2</sup> GRC & Architectural Cast Stone Production Facility
- ▶ Employing 78 staff
- ▶ Yielding £6,200,000.00 production per annum
- ▶ The UK's largest manufacturer of Architectural GRC.



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## GRCA Manufacturing and Testing Specification.

All GRC is manufactured to the GRCA Full Membership AMS criteria, including; BS:1169 parts 1-6 and BS:1170.

### Testing & specifications includes;

- ▶ Correct factory setup and regulations
- ▶ Spray equipment calibration
- ▶ Slump & wash out tests
- ▶ Daily wash out checks (check fibre content)
- ▶ Coupon production for flexural testing
- ▶ Density & water absorption tests
- ▶ Dimension & tolerance checks
- ▶ Correct method of curing

Alongside the above GB maintain their own rigorous in house QA system, ensuring full traceability of all aspects of manufacture.



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## GRC moulds waxed and prepared for 'spray up'

- ▶ Moulds are manufactured from timber, betaspan or GRP.
- ▶ All moulds and GRP formers are manufactured in-house by time served precision pattern makers.
- ▶ Moulds include all cast in lifting sockets pre-formed pockets for bracket locations.



## GRC Mist (face) Coat Preparation

- ▶ GRC Face coats are carefully batched from tested and approved mix designs.
- ▶ Mist coats include: sands, cement, waterproofing agents, pump aids and polymer.



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## GRC Mist (face) Coat Application

- ▶ Face coat being carefully sprayed into prepared moulds, generally 2-3mm thick.



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## GRC Backing Coat Application

- ▶ Backing coats of GRC (basically mist coat with chopped fibre) are sprayed on top of the mist coat through the spray machine and concentric gun.
- ▶ Coats are built up in 3 layers up to 14mm, all coats are spot checked for thickness in multiple locations across the panel.
- ▶ All lifting sockets and bracket pockets are solid filled during this process.



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## GRC Backing Coat Compaction

- ▶ All layers of GRC are carefully rolled and smoothed between coats ensuring consistent homogenous compaction.



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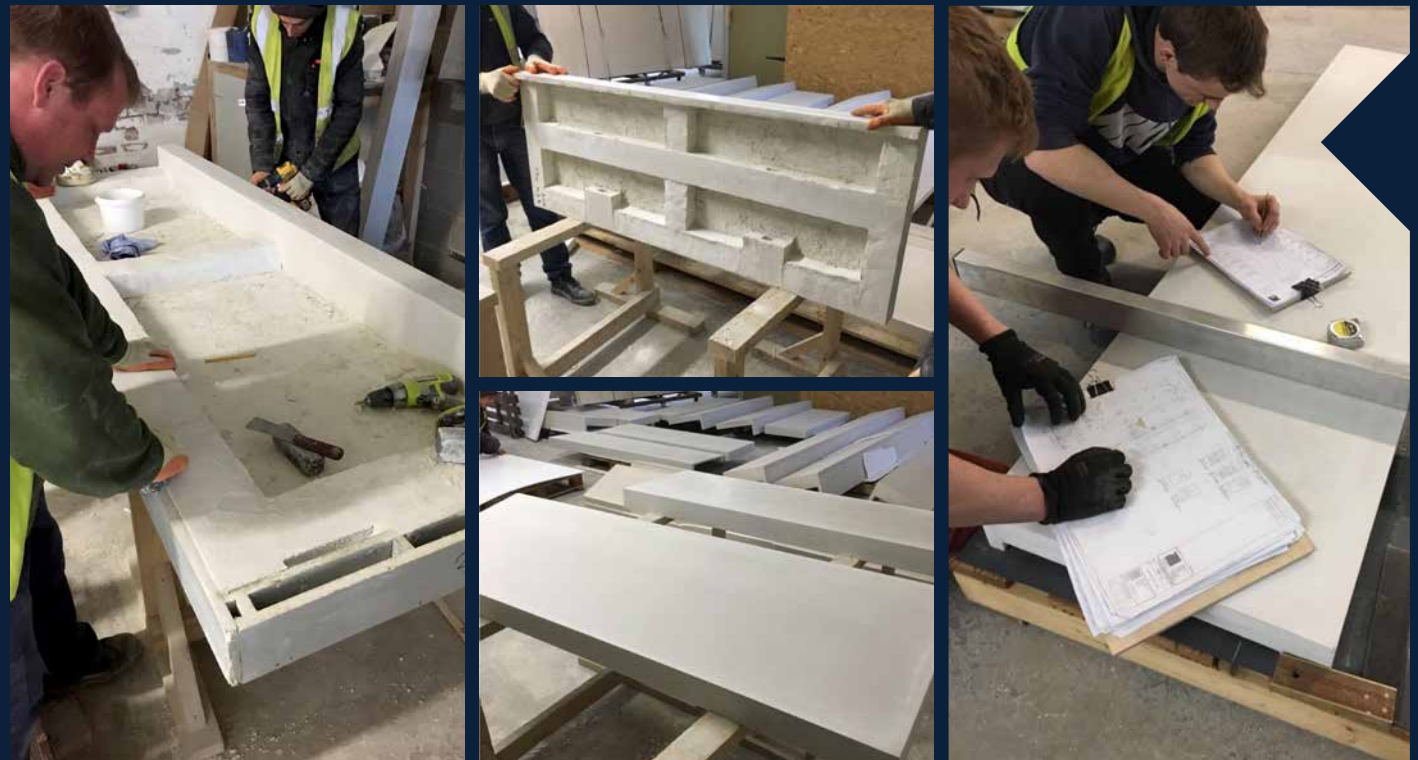
## GRC Engineering Rib Location

- ▶ Engineered ribs are located within the back of the GRC panels and sprayed over with further layers of GRC.
- ▶ Areas around lifting sockets and fixing pockets are solid filled in accordance with fabrication drawings.



## GRC Demoulding

- ▶ Once panels are at 25% strength, panels are carefully demoulded and thoroughly QA checked.



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## GRC Demoulding of Large Panels

- ▶ Larger panels being mechanically demoulded.



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## GRC Finishing

- ▶ Panels being carefully shot blasted to the specified architectural finish.



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## GRC Curing, Protection and Despatch

- ▶ Following all finishing processes, panels are cured internally for a further 5 days before being protected, wrapped and prepared for dispatch.
- ▶ All pallets / A frames are fully identified with codes and GA location.



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## Highly Respected and above all Trusted



Today we continue to focus on developing our relationships with architects and contractors to forge partnerships that achieve the highest possible standards, regardless of the complexity or nature of the product.

Within these partnerships, our flexibility is the key to adapting to design, specification or lead time changes and continue to deliver high grade products at competitive prices - helping to achieve total customer confidence time and time again.

For further information contact our sales team at:

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