

Introducing DEECOM®

Reduction | Reclamation | Reuse
of polymers and composites

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B&M Longworth (Edgworth) Ltd. Registered in England No: 1259441.
Registered office: Sett End Road North, Shadsworth Industrial Estate,
Blackburn, Lancashire, BB1 2QG, UK



Introduction to Longworth

Environmentalists at heart, innovators by nature

- ▶ Family owned and run SME since 1976
- ▶ Specialist polymer filter & component cleaning
- ▶ Bespoke machinery design and build
- ▶ Installations in 18 countries around the world
- ▶ Invented DEECOM® in early 2000s to reduce use of TEG solvents, chemicals and emissions.
- ▶ 2011 DEECOM® recognised as a reduction/reclamation solution for plastic and composite waste. Proven with Boeing
- ▶ Following intensive CR&D with public and private sector partners, now has proof of concept, proof of market
- ▶ Currently looking for partners, customers and investors to join us on the journey to market scale

Composite/plastic waste served by DEECOM®

- ▶ Automotive
- ▶ Aerospace
- ▶ Marine
- ▶ Rail
- ▶ Fashion & textile
- ▶ Wind / nuclear energy
- ▶ Electronics
- ▶ NHS single use plastics
- ▶ Packaging
- ▶ MOD

Environmental and processing benefits of DEECOM[®]

DEECOM[®] significantly reduces or eliminates the following:

- Chemical and solvent waste processing
- Raw material wastage
- Landfill
- Waste handling/ processing/ transportation
- Carbon footprint of waste
- Time lag to zero avoidable waste
- Lack of circularity in composites
- Harmful emissions
- CO₂ from incineration

DEECOM[®] flexible capacity: from table top to up to 3,000 litres³



Benefits of DEECOM® for composite reclamation

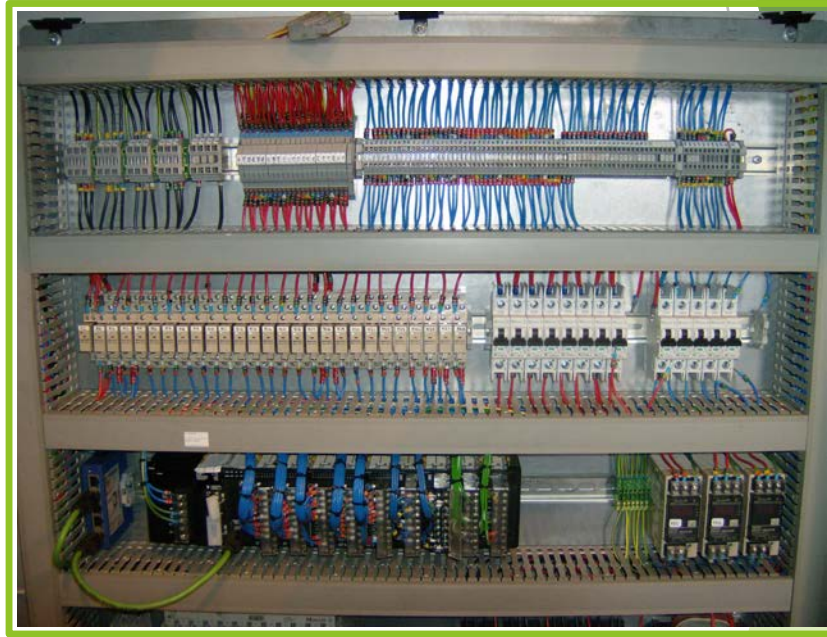
- ▶ 1 Minimise raw material wastage
- ▶ 2 Process manufacturing waste in-house (cured or uncured)
- ▶ 3 Reclaim or 'clean' fibres for reuse or sale
- ▶ 4 Reclaim resin waste for reuse or sale*
- ▶ 5 Remove cost of waste management
- ▶ 6 Enable effective EOL composite circularity
- ▶ 7 Create possible revenue streams from recyclate
- ▶ 8 Achieve zero avoidable waste almost immediately
- ▶ 9 Help the UK to lead the charge on UN SDGs

Industry 4.0 digitalisation

enables virtual commissioning, service and maintenance



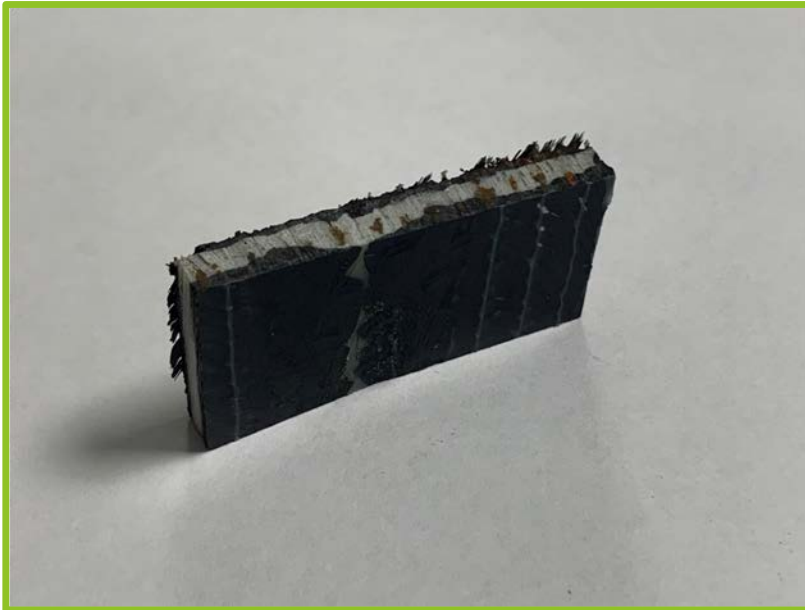
HMI



PLC controlled

Allows global remote monitoring from
the UK

Automotive prototype components with DEECOM[®]



Before:
Co-molded GRP and
CFRP rear deadbeam



After:
Pristine
carbon and
glass fibres
ready for
repurposing



Before:
PEEK infused CF

After:
Pristine
carbon
fibres ready
for
repurposing





What's next?

How do we take DEECOM® to market as a waste solution?

1. CR&D Projects – we need partners with a vested interest in a global reduction on composite raw materials and waste and an increase in the uses/capabilities of recycled composites, to help us prove the market case and reach launch customers

2. Customers

DEECOM® is nearing the end of R&D phase and approaching launch to market. Launch/pilot customers and distributors such as established equipment suppliers are pivotal

3. Investment

As a small SME, we're unable to take DEECOM® to full scale and enable it's global potential without significant investment, be that funded R&D projects or full/part sale of IPR

Thank you.