



dark matter composites Ltd

## STEP SANDING TOOL KITS

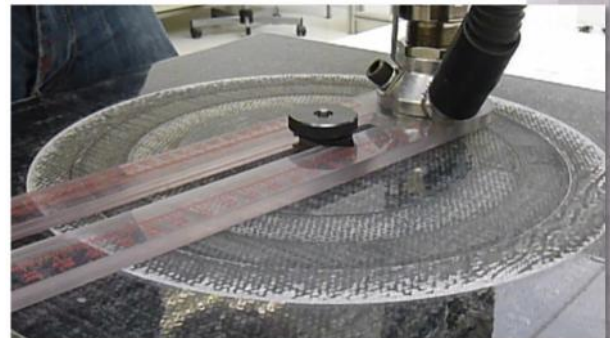
**High end step sanded composite repairs into the realms of standard repair practices at significantly reduced cost, we have an 'Off the Shelf Solution'**

### PROBLEM

- Composite repairs are time consuming
- Ever increasing use of carbon fibre leads to the risk of carbon dust shorting expensive and often critical electrical circuitry
- Scarfed repair surfaces are time consuming to prepare and consistency depends on the skill of the repair technician
- Step sanded repair surfaces are even more time consuming and difficult to conduct but offer the best structural repair solution

### SOLUTION

- **Our 'Step Sanding Tool Kits' allow step sanded repair surfaces to be prepared in less time than scarf surfaces**
- **Consistent step sanded repair surfaces produced with typically 50-75% time saving over current practices**
- Can be used cross sector, including civil, marine, automotive and aerospace repairs
- Modified Dynabrade air motor with diamond surface planing heads and flexible jigs accommodate step sanded repair surfaces on parts with internal and external double curvature
- Repair areas up to 1220mm (48") in diameter, in step increments as low as 1mm (1/16") and depth increments of 0.05mm (0.002")
- Laser engraved jigs with metric and imperial scales for both radii and diameters
- Diamond planing heads allow removal of a range of composite materials from coarse to fine, including gel coats, chopped strand mats, woven pre-preg fabrics, uni-directional, stitched, spread tow, thin ply and veil fabrics
- Paired with one of our dust extraction units, the on-tool extraction is highly effective at removing the dust generated at point of source, to the extent that it eliminates the need for containment curtains and dust masks during the surface preparation activity



t/f +44 (0)1582 791001 [www.darkmattercomposites.com](http://www.darkmattercomposites.com)

Unit 8 Redbourn Industrial Estate, High Street, Redbourn, Hertfordshire, AL3 7LG, UK

Issue 04/2023

Registered in England & Wales No: 5395870



dark matter composites ltd

## STEP SANDING TOOL KITS

### Each kit includes:

- Dynabrade Air Motors modified to our specification
- ¼" Dynaswivel and Hi Flow airline connection
- 1 ¼" swivel vacuum extraction connection
- Depth increments of 0.05mm/0.002" with laser engraved scales
- All jigs engraved metric/imperial scales for radii and diameters in 1mm/1/16" increments
- All jigs fully adjustable with scale pointers
- Re-usable jig datum points with 3M VHB self-adhesive pads (pack of 100)
- Pen insert and compass centre for marking parts & materials
- Full set of hex keys, spanners and screwdriver for assembly & adjustment of kit
- Full colour printed user manual & flash drive with instructions & videos
- Supplied as a kit in an aluminium case, inlaid into foam for easy transportation



### NEW - DMP0111 – Small Step Sanding Tool Kit

Supplied with thin very flexible jigs and small diameter planing heads to address intricate parts with tight internal and external curvature

- 44/60, 60/85 & 85/100 diamond grit surface planers in two diameters (set of six)
- Small circle jig for 10-150mm/ ½"-6" diameter repair surfaces
- Thin and flexible small radius arm jigs for 100-305mm/4-12" diameter repair surfaces
- Flexible large radius arm jigs for 100-610mm/4-24" diameter repair surfaces



### The Original DMP0110 – Step Sanding Tool Kit

Supplied with flexible jigs and larger surface planing heads to address large parts with less curvature

- 36/44, 44/60, 60/85 & 85/100 large diameter diamond grit surface planers (set of 4)
- Small circle jig for 40-150mm/1 ½"-6" diameter repair surfaces
- Flexible small radius arm jig for 150-610mm/6-24" diameter repair surfaces
- Flexible large radius arm jigs for 150-1220mm/6-48" diameter repair surfaces



Please contact us for the latest prices & lead times

### Related training & equipment:

- **DMSC39 & DMSC59 training courses include using the kit for advanced composite repairs**
- **DMP0120 & DMP0123 are compatible portable extraction units**

t/f +44 (0)1582 791001 [www.darkmattercomposites.com](http://www.darkmattercomposites.com)

Unit 8 Redbourn Industrial Estate, High Street, Redbourn, Hertfordshire, AL3 7LG, UK

Issue 04/2023

Registered in England & Wales No: 5395870