



A view of the Manufacturing shopfloor



Within the capacitor winding facility at MPE



An operator can access a component from the drawer of the automated carousel a few seconds after entering the required part number via the keypad on the left



Two operators kitting component parts for orders ahead of assembly

## MPE Manufacturing moves up to another level

Over the last five years MPE has witnessed a significant and continuous growth in demand worldwide for its products. This increased demand has placed greater pressure upon MPE's Manufacturing teams and accordingly, following a thorough review, MPE has implemented an updated strategy to gear up production to accommodate £10 million worth of annual sales.

### A new reporting structure

A new reporting structure has been introduced in Manufacturing, with fresh roles created and the Manufacturing team expanded. As well as active recruitment, this has resulted in a number of internal promotions and personnel progression. The new structure delegates more responsibility and accountability to both supervisors and operators.

### Continuous improvements to workflow

Alongside an increased headcount of skilled operatives, numerous improvements have been made to equipment, facilities and processes. Within the last 12-month period, lean manufacturing techniques have been rolled out within MPE's internal business units supplying fabricated boxes, inductors, capacitors and machined parts for assembly processes downstream.

These techniques include single piece flow rather than batch manufacturing. That method presents the required components much earlier for the kitting operation, enabling the kitting of parts up to five weeks in advance of the sales order due date, so as to achieve on-time deliveries.

### Capacitor winding facilities

MPE's capacitor winding room has been reconfigured into two lean cells which are mirror images of each other. This enables a single operator to manage all of the machines within a cell at the same time if required and eliminates non-value-added activities.

### High-current filter manufacture

Manufacture of MPE's high-current filter ranges, 800A and above, has grown by over 100% in the past three years. In response to the surge in orders, many from overseas, a new, dedicated assembly area has been created for these large filters, which are often produced in large volumes for major projects. This, along with the implementation of lean manufacturing techniques, has increased capacity in that area by 300%.

All of the above has contributed to MPE's achievement of 96% on-time delivery in full across 2021, despite the acknowledged pressures which the Covid pandemic has placed upon material sourcing and international shipping.

### Looking forward to a bright future

In 2022 MPE will implement a long-term plan to restructure its Manufacturing facility in order to maximise process efficiencies and boost throughput. The plan includes dedicated product-type assembly cells with their own test capability, additional investment in paint facilities to increase painting capacity by up to 200%, and the further streamlining of packing processes and systems.