

# DIRECT EDGE MANUFACTURING



## CASE STUDY

### THE PROJECT

Increase material yield and utilisation of sheet metal offcuts from CNC laser cutter utilising software to manage offcut inventory.

Seek efficiencies in the laser cutting process and reduce rework originating from programming.

### BACKGROUND

The materials used in production (mild steel, stainless steel, aluminium) are highly recyclable and there are established systems in place for collection and recycling. The company maintains a large inventory of offcuts to optimise value inherent in the material and reduce embedded energy in each product lifecycle.

### OBJECTIVE

Maximise the profitable yield of materials.



Approximately 93% of the waste generated from production processes is metal offcuts, which are readily recycled, with a well established secondary market.

### TARGETS

Reduce scrapped metal by 50%

Reduce off-cut inventory by 50%



## OUTCOMES

### WHAT WAS IMPLEMENTED?

Google Sheets was introduced for real-time collaborative management of inventory by production and programming teams.

Peer review of nesting drawings within programming team to promote improvement.

Greater forward visibility for weekly scheduling to optimise nesting of parts on each sheet.

Regular combined team meetings to improve communication.

### KEY ISSUES

A big software solution was too expensive to implement; we needed a simple alternative.

In small business, production equipment takes priority over other upgrades as this is where the most value is added.

Getting information from suppliers and internal stakeholders took a lot longer than expected.

We had to get both teams working together to support the improvements.

### PERFORMANCE AGAINST TARGETS

50% less rework in programming overall

50% reduction in offcut inventory



“It was great to get ideas from other businesses and see some of our ideas adopted by others in the group.”

#### **Bronte Richardson**

Programmer, Direct Edge Manufacturing



Offcuts created are recorded and stored in colour coded racks in the production area.

### LESSONS LEARNT

A few small changes can make a big difference.

Businesses everywhere have waste management issues but some of these could be solved through greater collaboration.

Tasmania doesn't have a very large recycling/waste industry compared with other regions.

Metal products are relatively easy to recycle, compared to composite materials like fibreglass!

The Business Resource Efficiency Program (BREP) is delivered by Business Action Learning Tasmania (BALT) in partnership with the Tasmanian government.

#### **For more information about BREP**

Visit [www.businessactionlearningtas.com.au/brep](http://www.businessactionlearningtas.com.au/brep)

#### **For more information about this case study**

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Direct Edge Manufacturing  
Penguin Composites  
Bridestowe Lavender  
Red Brick Road Ciderworks  
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