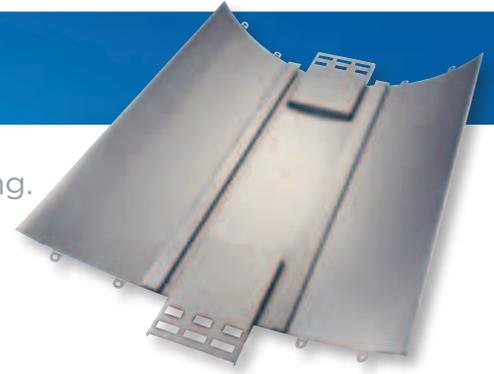


# Dedicated Tooling For Components

## *To Buy or Not to Buy*



Dedicated tooling plays a vital role in sheet metal manufacturing. It improves part consistency and quality, lowers part cost, encourages standardization in design, can improve part lead-time, and can reduce material handling of parts.

### WHAT IS DEDICATED TOOLING?

Dedicated tooling – also referred to as “hard” tooling – is any tool specifically designed to be used exclusively on a particular customer’s part or group of parts. A dedicated tool may have a special feature or proprietary component that would exclude it from being used on another project.

### WHAT ARE THE TYPES OF DEDICATED TOOLING?

Different types of dedicated tools can be segmented by the forming process in which they are used:

**BRAKE PRESS:**

Offset tools  
Pierce  
Form tools

**PUNCH PRESS:**

Pierce and blank dies  
Form dies  
Progressive dies

**TURRET PUNCH:**

Small forming  
Perimeter blanks

**FIXTURING:**

Welding  
Assembly

**SPECIAL FEATURES:**

Emboss  
Lance

### HOW DO YOU JUSTIFY THE COST OF DEDICATED TOOLING?

The basic measurement on your investment in tooling is by volume and profit. At RMF, we look at the cost of the tool versus the volume of parts produced over a specified amount of time. This amount of time is commonly known as ‘Payback Period’. The amount of savings in the manufacturing process that the tool creates per part is multiplied by the number of parts estimated to be produced over the ‘Payback Period’. If this amount is greater than the actual cost of the tool; the tool is deemed justified.

**EXAMPLE:** Form Die Cost = \$5,250.00

Amount of savings in the manufacturing process that the tool creates per part = \$0.86

Volume of parts produced over a specified amount of time = 10,000 pieces

$\$0.86 \times 10,000 = \$8,600$  savings over the ‘Payback Period’; which is greater than the Form Die cost of \$5,250.00. This tool is justified.

Other justifications for dedicated tooling can be to achieve a specified lead-time. Depending on the volume of parts, some manufacturing operations can take too long to meet specific due dates. Dedicating tooling to speed up or eliminate those operations can help get you your parts when you want them.

More on next page 

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### HOW DO I DETERMINE THE PROPER TOOLING FOR MY JOB?

There are two major points in looking at dedicated tooling for your component. First, take a look at the most time consuming manufacturing process within the component. Think about what kind of tool could be used to shorten or eliminate that operation. Compare the cost of that tool with the savings over your 'Payback Period' (see HOW DO YOU JUSTIFY THE COST OF DEDICATE TOOLING? for information on this calculation).

The second type of manufacturing process to look at, is the one with the highest cost and labor rate. Perform the same analysis as described above to determine if the tool is justifiable.

### WHAT ARE THE PAYMENT OPTIONS FOR TOOLING?

There are two ways to pay for the dedicated tool. Some companies, in fact most, prefer to pay all costs up front. Others prefer to spread the cost out based on production volume. That number is determined by how long they want to spread the investment out against their financial calendar (not more than one calendar year).

### WHAT IS THE TYPICAL LEAD TIME FOR BUILDING A TOOL?

**NC TURRET TOOLING (1 WEEK)**

**PUNCH PRESS TOOLING (4 TO 8 WEEKS)**

**PROGRESSIVE TOOLING (8 TO 12 WEEKS)**

