

PCAM SETUP

The PCAM (Position Cam) causes the axis to travel at different speeds throughout its rotation. PCAMing is used to make different length parts (longer or shorter) with the same tooling. With PCAMing, there are limits based on speed, Repeat Length, Part Length and Match Length. This function is commonly used with cross seals and sheeting dies, and can be used with or without registration enabled.

Note: PCAM does not work on dies where the tooling has continuous contact with the web. There must be an area where the tooling does not contact the web between parts to use PCAMing.

PCAM Example

Your tooling has a longer Die Repeat (Figure 1) than the part repeat and shorter part lengths are desired: When the tooling is in contact with the web, the PCAM will match the web speed based on the set gear ratio. When the tooling is not contacting the web, it will increase its speed in order to make up for the difference in the remaining rotation.

Repeat Length

Repeat length or Die Repeat is the length of the repeat on the tooling (Figure 1). For example: if you have a 14-inch (355.6 mm) circumference tool with four blades the repeat length would be 3.5 inches (88.9 mm). This parameter is entered by the operator and checked by the computer. The Repeat Length for PCAM is the same number used for the Repeat Length with Registration.

Part length

Part length is the leading edge to leading edge distance between parts on the web (this includes the waste material between parts). On a sheeting die it is the length of the part you want to cut. See Figure 3.

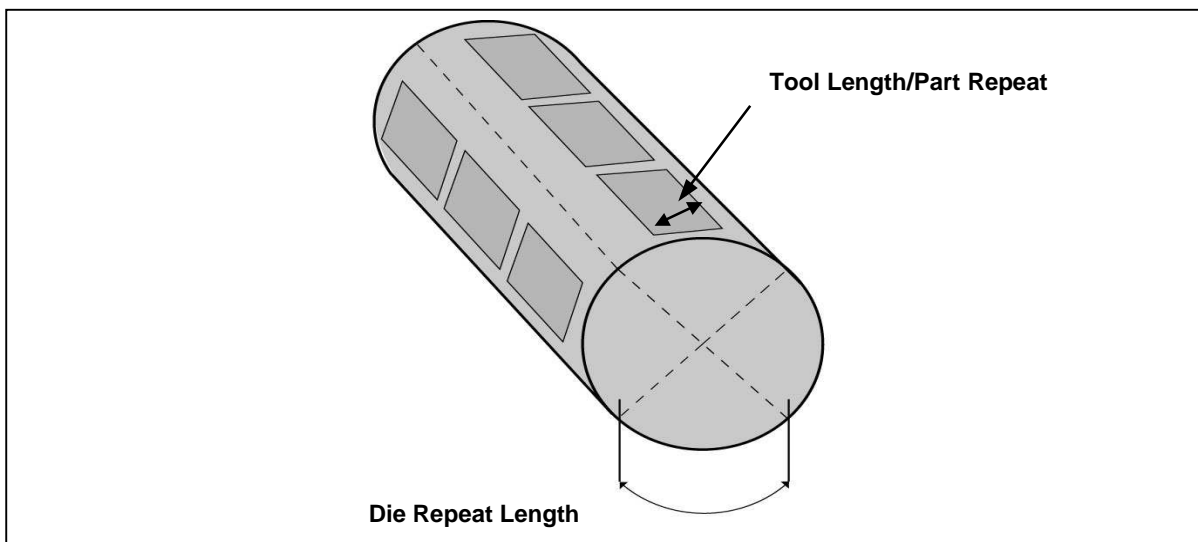


Figure 1-Repeat Length

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Match Length

The Match Length is the distance that the tool will travel at the set gear ratio for the axis. This move is done while the tool is in contact with the web. The Match Length should be the Tool Length (Figure 1 & 3) plus at least 0.5 inches (12.7 mm). The added 0.5 inches is used to give the axis a stable matched speed while the tooling is touching the web.

Note: The Match Length must be shorter than the Repeat Length and Part Length to give the tooling time to PCAM.

Match Position

The Match Position is the absolute center of the tooling. This position is used by the computer to reference where on the Part Length the Match Length of the PCAM will occur. The value displayed on the Match Position field is the set position location of the tooling.

To setup PCAMing

1. Turn On the axis that will be used for PCAMing. Turn On the PCAM control.
2. If you are using Registration, Enable Re-Reg and Setup Re-Registration. See Re-Registration Setup Instruction.

3. Enter the Repeat Length, Part Length, and Match Length in the PCAM window.

Note: If any PCAM parameter is changed (Repeat Length, Part Length, Match Length, or Match Position) the machine must be jogged to home the die and put the values into effect.

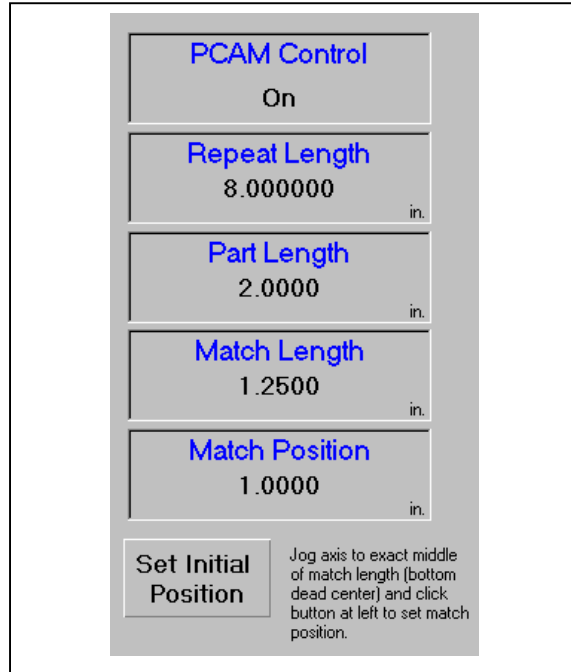


Figure 2-PCAM Window

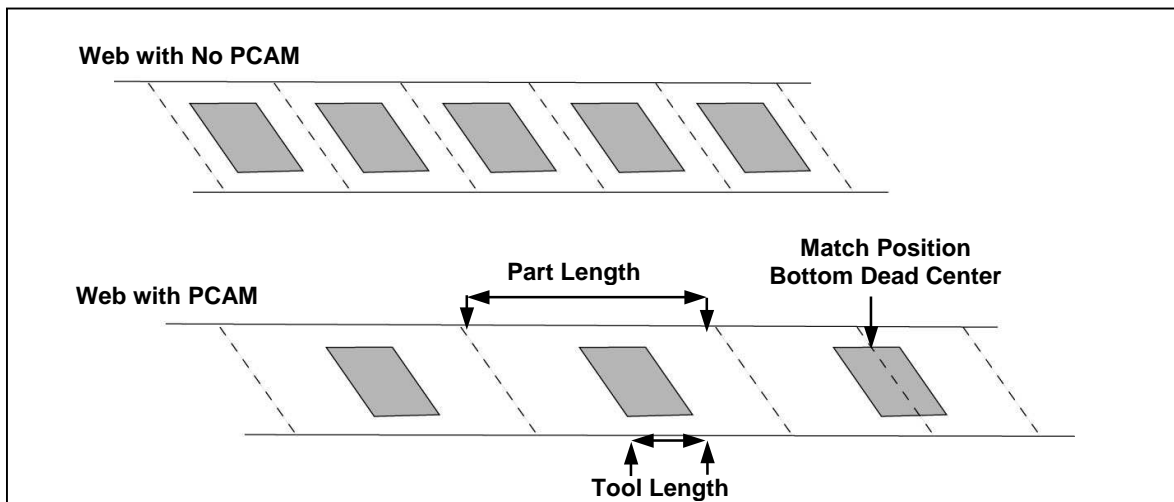


Figure 3-Match Length and Tool Length



4. Jog the machine and allow the die to home. If Re-Reg is enabled and properly setup, make sure that the die is receiving Good Marks.
5. Stop and Jog the machine so the bottom dead center of the tool is in the in contact with the anvil. Figure 3.
6. Press the “Set Initial Position” button on the touch screen. The Initial Position value will display on the Match Position field.
7. Repeat the Match Position Setup if necessary.

Note: If the Match Position value is changed manually or the PCAM tooling is removed/replaced, Match Position Setup should be performed.

8. If Re-Reg is enabled, Jog the machine and allow the die to move to the offset position. Make adjustments to the Offset parameter to adjust the location of the Cut.

