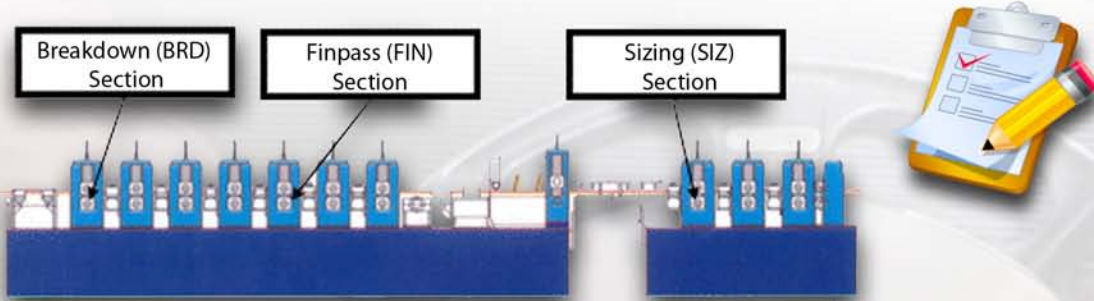


# ROLL-KRAFT®

## Calculating RPM Settings for Mills With Multiple Motor Drives Revolutions Per Minute (RPM)

### Step #1

First is to understand sections, and the number of motors. This example has 3 motors. Then determine the Throat Diameters (TD) of the first pass/stand in each section.



This information can be found on your rework data sheets, or by measuring the throat diameter with a blade micrometer.



### EXAMPLE for calculation RPM Values:

**IMPORTANT NOTE:** The Largest or Smallest (TD) may be in any section.

$$(BRD)\text{-Section} - (TD) = 5.559$$

$$(FIN)\text{-Section} - (TD) = 5.664$$

$$(SIZ)\text{-Section} - (TD) = 5.918$$

### Step #2

\* Next divide the Largest (TD) by the Smallest (TD)



RPM Values for:

$$\begin{aligned} (BRD) \text{ Section} & \dots\dots\dots 5.918 (SIZ) \text{ Section}(TD) \\ & \div 5.559 (BRD) \text{ Section}(TD) \\ & \quad \quad \quad 1.064 \text{ RPM Value} \end{aligned}$$

$$\begin{aligned} (FIN) \text{ Section} & \dots\dots\dots 5.918 (SIZ) \text{ Section}(TD) \\ & \div 5.664 (FIN) \text{ Section}(TD) \\ & \quad \quad \quad 1.044 \text{ RPM Value} \end{aligned}$$

# Step #3

**EXAMPLE** for calculating the RPM settings for each section:

We need to determine the actual RPM from the Largest (TD). In this example shown it is the (SIZ)-Section.

If you do not have a Digital Tachometer as shown, please click on link that will take you to Roll-Kraft's [Advantage Tool Kit](#).

**NOTE:** Do not use an Analog Tachometer.



# Step #4

\* Next multiply the Largest (TD) RPM by the RPM Value in each section.



Note: Actual RPM reading from Largest (TD) Section shown above is 100.

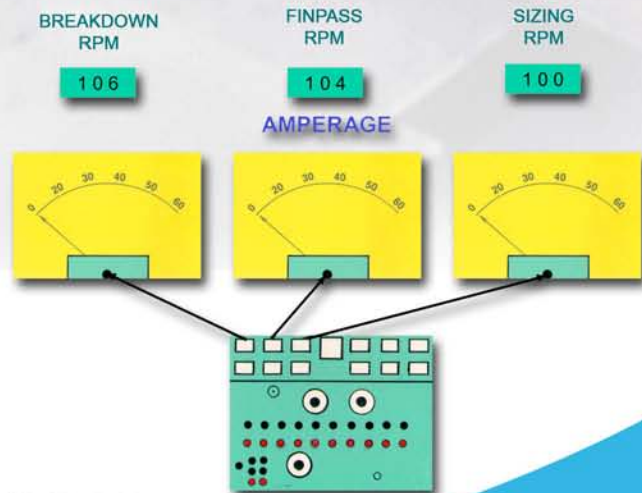
**RPM settings for:**

(BRD) Section.....	100 RPM the Largest (TD)
	X 1.064 RPM Value of the (BRD) Section
	106 RPM

(FIN) Section.....	100 RPM the Largest (TD)
	X 1.044 RPM Value of the (FIN) Section
	104 RPM

\* If possible, set the RPM (Just calculated) of each drive before the strip is fed into the mill. Adjust your drive motor trim to match the required RPM in each affected section.

\* Recheck the RPMs in each section, once the strip is in the mill and rolling. Monitor the AMP gauges for each section for equal load and proper coordination.



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